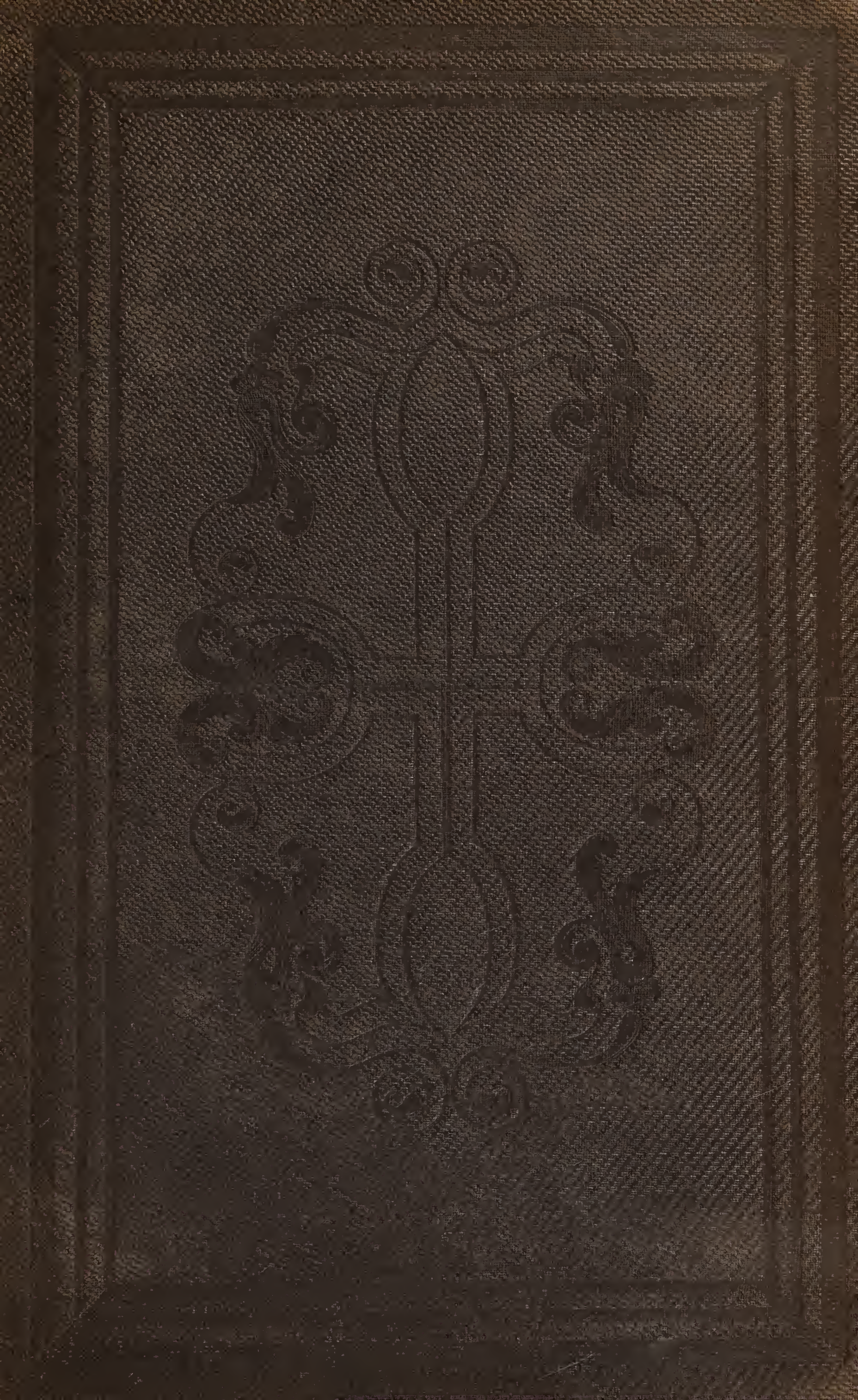

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COFFIN'S

BOTANICAL JOURNAL

AND

MEDICAL REFORMER.

"HUMAN EXPERIENCE, WHICH IS CONSTANTLY CONTRADICTING THEORY, IS THE GREAT TEST OF TRUTH."—DR. JOHNSON.

VOLUME VIII.

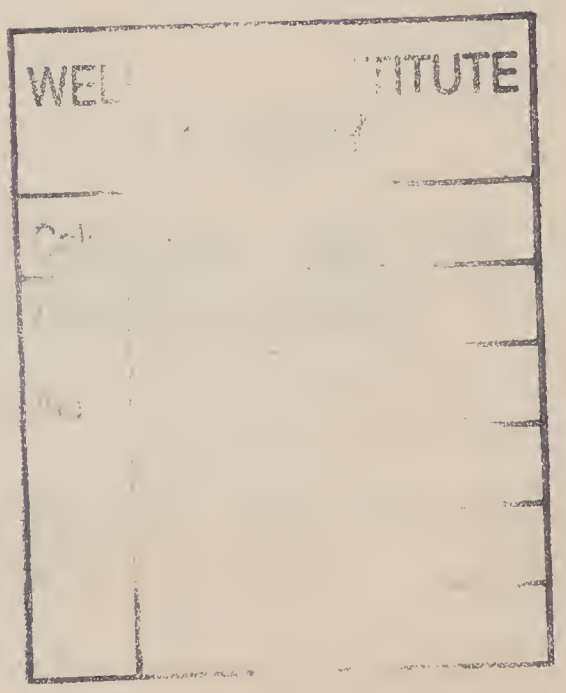
LONDON:

PUBLISHED AT THE BRITISH MEDICO-BOTANIC ESTABLISHMENT,

134, HIGH HOLBORN.

PRINTED BY B. D. COUSINS, HELMET COURT, 338, STRAND.

305045



PREFACE TO THE EIGHTH VOLUME.

We have, in our comparatively new editorial capacity, brought the present volume to a close, and shall, with renewed energy, commence the ninth volume.

Notwithstanding all the opposition among our opponents, the medical profession, with their assumed contempt for Dr. Coffin's inestimable Medico-botanic System, but in reality envy for the good it has so effectually done, joined to their marked persecution experienced in several cases, the system is progressing; nor does it need the spirit of prophecy to foretell that it must progress—that from the very nature, genius and simplicity of its system, it inevitably will progress, in spite of all opposition, and in contradiction to all persecution.

The faculty have covertly and by indirect means tried their utmost, and have signally failed. Finding themselves thus thwarted, they have again had recourse to Governmental interference, the result of which is the passing of a Bill that is more stringent, restrictive and narrow in its application than any measures relative to the profession that have hitherto received the signature of her Majesty. It is unjust, ungenerous, and to the last degree monopolising, so much so indeed that it prohibits numbers from practising who have the same undoubted right to practise as the framers of this most precious document. But they will find that this time they have "reckoned without their host;" and vast numbers who are greatly injured by the Bill will join our opposition ranks, and unite with us in the most strenuous endeavours to annul or alter the clauses in this offensive Bill.

Some proof of this may be adduced upon reviewing the enormous lists of signatures brought into Parliament by the promoters of this gagging Bill, amounting to the astonishing number of 624,

obtained by issuing 117 petitions ; whilst we, the practitioners and followers of Dr. COFFIN'S System and Botanic Remedies, issued only 45 petitions, and fairly and honourably obtained 13,738 signatures, showing in this instance a balance in our favour of 13,114. Yet, in the face of all this, did the House of Commons, in their collective wisdom, pass this Bill—they, the so-styled representatives of the people, acting diametrically opposite to the people's best interests—still they are all, "All honourable men." Thus, when we consider the weight that can be thrown into the scale by the numbers of the profession who are deeply injured by this measure, we may with a degree of certainty predicate such an amount of opposition and force as will, in all probability, have its due influence and weight in Parliament, and be the cause of, if not annulling the Bill, at least greatly modifying its clauses. On the other hand, should all the clauses of the Bill stand unaltered, yet there is nothing to prevent one party prescribing and another compounding; nor can the Bill prevent the Medical Botanists from visiting any party desirous of seeing them, or paying them for their expenditure of time ; and as our system and medicines will cure, and have cured, when all the means of the allopaths have failed, and this is extensively known, parties will, in the exercise of their own rights, apply to our agents, and no power can hinder them from purchasing or our agents from supplying.

But we must draw to a conclusion (else our preface will outrun our limits) by adverting to one particular feature in the present volume, which will be continuous in our next, namely, the Botanical Illustrations, which we trust will be deemed by our patrons no small acquisition to the matter and subjects of our Journal ; and in the hopes of their appreciation of our exertions, we close by wishing them all the good they can desire for themselves.

September 18, 1858.

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COFFIN'S
BOTANICAL JOURNAL
AND
MEDICAL REFORMER.

"Human experience, which is constantly contradicting theory, is the great test of truth."—Dr. Johnson.

No. 239—Vol. VIII. SATURDAY, JULY 11, 1857. Price 1d.

MEDICAL BOTANY AND ITS OPPONENTS.

In beginning another volume of this Journal, it is gratifying to observe, that progress has been made in gaining public opinion in favour of Medical Botany. Many of the most violent opponents to the system have had their fallacies so often exposed, and their assertions contradicted by facts, that they are compelled to be silent; while others have had the candour to confess their error and acknowledge their conviction; so that now there are, among some of the most zealous advocates of the system, those who were at one time its open and determined enemies. We fearlessly challenge investigation, and ask frankness from our opponents, to avow the result of the most rigid examination. It is unfair, on the part of those who once abused the system before they understood it, to have had their minds enlightened and their prejudices removed, and yet to remain *secret* disciples, wanting the moral courage to meet the sneers and repulses of those who despise and reject the whole science of Medical Botany. And yet, in spite of the open antagonism of some, and the secret lethargy of others, the practice of Medical Botany is extending deeper and wider than ever. The legislature has shown great wisdom in not employing its influence in attempting, by any direct act, to put down the practice. It is now driven to adopt covert and indirect measures, that it may not endanger its own safety and power by rousing the indignation of the most enlightened portion of the nat n

We have however not half so much to fear from the attacks of avowed adversaries, and from the interference of the legislature, as we have from the lukewarmness and inaction of our professed friends. Many who owe the saving of their lives and the lives of their children and their friends to Medical Botany, are so indifferent to its claims upon their gratitude and zeal, that they never make a solitary effort to diffuse a knowledge of the system, nor spend a penny in the support of this Journal. This is the worst, the most damaging kind of opposition, paralysing the exertions of others, and disappointing in the calculations of the amount of strength. It is, however, gratifying to see a movement among some of the friends of the science which cannot fail to rouse others into action—a movement which will remove prejudice, disarm opposition, and establish the system on the immovable basis of veritable and well attested facts—we refer to the statistics which appear in the latter part of the last volume. In every number of this Journal we shall hope to furnish statistical accounts from agents in the metropolis, and also from different parts of the provinces. Facts are stubborn things. Allopathy must crouch before the evidence thus supplied. Let a number of cases be given where allopathy has tried its skill and remedies, and then let the same number of cases be given where the science and the medicines of the Botanic System have been tried, and both classes being in all things equal as to age, disease and all other circumstances, and then let it be fairly seen how many

have died and how many have recovered under the separate and different treatment of each system. Then let an impartial public give its verdict in favour of that system which has proved most effective in stopping the ravages of disease and in preserving life. Hitherto the statistics have been very scanty to what they might have been. London, Brighton, Birmingham and Oxford have contributed to what has already been done. A general stir in this direction would soon put us in possession of material sufficient to make a large volume.

The greatest favour we have to ask of the legislature is, *that they will let us alone.* We neither want their patronage nor deserve their censure. All we want is, to have a clear arena and fair play. If our system, or any other, cannot stand the test of experience, we say, the sooner it is swept away as rubbish, the better it will be for humanity, for science, and for the world; but, if on the contrary, our system is demonstrated by experiment to be the most effective in accomplishing what it professes, then it is obligatory on every man, patriot and philanthropist, to publish and commend it as extensively as possible, that the largest number of human beings may be encouraged to try its remedies and receive its benefits. We wish for no other conquest than that of truth over error, and for no greater triumph than that of health and life over disease and death. We have the vegetable productions of earth and the constitution of human nature on our side. We use our remedies in their native simplicity, neither weakening their strength, nor changing their properties by chemical combinations or adulterating processes. We never injure the delicate frame of humanity, by introducing violent and incompatible ingredients. It would be well for our opponents if they could make the same assertions with truth. Many a widowed heart writhes with anguish, many bereaved parents weep bitter tears, when they remember how their beloved departed ones suffered from the medical treatment they received, and from the poisonous drugs they were compelled to take. Had Botanic Remedies been applied, many graves had now, according to all human probabilities, remained untenanted, and many houses, now scenes of desolateness, had still been gladdened with smiling faces and cheerful voices. Our opponents have no triumphs of their art to which they can point with pleasure, and with the heart-felt gratitude of the relatives of their patients. Their triumphs swell the bills of mortality, fill the cemeteries, and hang the pall of gloom and sadness over many of the once happy homes of England.

We here leave the subject to the consideration of our readers, in the hope that we may witness a greater amount of zeal in diffusing the principles of Medical Botany, than has hitherto been displayed.

THE VICISSITUDES OF TEMPERATURE.

Among the causes of disease, none is more fruitful than the sudden change of temperature in the atmosphere we breathe. During the intense heat of some days, many persons, after making any exertion, have felt the heat so oppressive as to be unable to endure it for any length of time —they have suddenly rushed into some cool place, or between two currents of air to obtain relief, and they have exclaimed, "How refreshing is this breeze!" In some instances this change has been the death-blast, and in others it has induced pulmonic disease, which has been comparatively latent during the comparatively mild months of autumn; but as soon as winter sets in, the mischief done becomes apparent, and unless appropriate remedies are promptly applied, the next spring carries them off the stage of life to that "bourne whence there is no return." In winter most persons are on their guard against the evils of sudden change of temperature, though there are some so very thoughtless that they will pass from the excitement of the ball-room, where they have heightened the temperature of the blood by violent exertion in dancing, and by inhaling a large amount of the human caloric emitted by the heated bodies around them, and then, without any precaution whatever, pass into the bleak atmosphere of a winter's night. The caloric of the human body, when in vigorous action, is more easily chilled than when it is partially dormant. This

assertion is illustrated by the following very simple experiment:—Take two jugs, the one filled with boiling water and the other with cold water, hold them as far apart from each other as the arms can possibly keep them—at the same moment pour the contents of both jugs on a stone or on the earth, when the air is below freezing point, and it will be found that the boiling water has turned to solid ice long before the cold water has been consolidated. Wherever there is heat, a certain amount of vacuum is produced, and the cold air rushes to fill up the vacuum. Every globule of the heated water is open to the freezing cold of the winter atmosphere, while every globule of the cold water is comparatively impregnable to the icy influence by which it is surrounded.

Warmth is an essential element of life, and that element is inseparable from living, healthy blood in human beings. Many things promote the vital heat; among which, the most observable are food, exercise, and medicine. Most fatty or oily substances have a tendency to generate caloric: hence the Esquimaux, the Laplanders, and other dwellers in Arctic regions, consume an amount of oil per day, enough to kill three men natives of the torrid zone; and though little oil is used with food in England, yet oil with salad is recommended on the principle, that some artificial heat is necessary to counteract the coldness of the raw vegetable, lest it should remain crude and undigested in the stomach. The position and organisation of the lungs, in the human body, show the wisdom and goodness of the Creator. Air cannot reach the bronchial tubes, or entrances to the lungs, without first passing through a warmed chamber, that it may be prepared to combine with the blood without chilling it; and it is only in the case of rapid transition from heat to cold, and heedless exposure, that danger is to be apprehended. It is because the atmosphere of this country is so variable, that diseases of the lungs prevail here more than in any other climate. Every judicious man endeavours to regulate the amount of dress he wears, so as to keep up an equable amount of heat in the body; but this is no easy task, for the changes are so great and so sudden, that no caution nor ingenuity can secure the dress that is at all times adapted to the weather, since within twelve hours the thermometer has varied fourteen degrees. It is, therefore, no wonder that there is much illness, and it may be expected there will be very much more before long. Many have now got their death-warrant within, and it is only a question of time when the warrant shall be executed. The remedies provided by Medical Botany, and those alone, can render the warrant nugatory. Warm baths, doses of Lobelia and cayenne can correct the mischief, and restore the equilibrium of heat in the human constitution; but the application of the curative process should be prompt, before disease has acquired strength, and undermined the vital power. The quantity of fluid taken at the present season of the year, should be a very strong reason for using the stomach bitters as a household drink, that by this means attacks of diarrhœa may be prevented, and the tone of the system maintained.

THE TRIAL OF MISS SMITH.

This is a remarkable event in the history of criminal prosecution in the metropolis of the north. It is another illustration of the bad effects of the sale of poisons. Currie, Murdoch and their assistants have acknowledged that they sold the deadly drug to the accused. Some of the most virulent poisons are absolutely necessary in manufactures; but they ought to be restricted to these purposes only, and not to be in every druggist's shop, where purchasers are tempted, by the facility offered for obtaining them, to commit deeds of death, either in suicide, or in murdering others. Medical Botany excludes poisons of all kinds from its pharmacopœia, and therefore lends its aid to prevent those crimes which stain the annals of our history.

EFFECTS OF ALCOHOL ON THE STOMACH AND NERVES.

Hold a mouthful of spirits in the mouth for five minutes, you will feel it burn severely; inspect the mouth, you see that it is violently inflamed; hold it ten minutes and the mouth becomes blistered; tie a bandage over the eyes, and take, for

instance, water, vinegar, milk, or senna; you are incapable of distinguishing the one from the other; for alcohol is not only a violent irritant, but also a *narcotic*, and, in these experiments, it has not only inflamed and blistered the mouth, but it has also paralysed, for the time being, the nerves of taste and common sensation. Let us trace its further internal progress: the stomach pours out a fluid into itself, during digestion, called the gastric juice; this is the true agent of digestion. It is this fluid which dissolves or digests the food, and without which digestion, and consequently life, would be impossible. It is a clear and transparent fluid, very similar to water in its appearance. Well, take some of this gastric juice and add a little alcohol—whisky, for instance—the gastric juice immediately becomes opaque and muddy, and a white matter falls to the bottom, which is called pepsin, and which pepsin forms the most essential constituent of the gastric juice; in short, the gastric juice is destroyed. As a proof of which take two glass tubes, put into each a small piece of beef, or any other food, and cover them over with fresh gastric juice; into *one* of them put also a little alcohol, place both tubes in a water-bath, and keep them at a temperature of from 98° to 100° for four hours; you will then find that the beef in the pure gastric juice is changed into a grayish-white fluid, exactly the same as you find in men or animals killed about the time digestion is completed; whilst that to which the alcohol was added is entirely unchanged, save being somewhat shrivelled. The very same phenomenon which I have described to take place in the membrane of the mouth, and with the gastric juice in the test-tube, has been *seen* to take place in the stomach of a living man (viz., St. Martin, a Canadian), under the repeated examination of the College of Physicians of Philadelphia. The late lamented Dr. Combe, of this city, republished the remarkable experiments of Dr. Beaumont upon this man, who, having had his stomach torn open by a gun-shot wound, recovered his health perfectly, but the wound in the stomach never closed, and hence the whole process of digestion can be seen going on; and it is a remarkable fact, that when this man takes intoxicating drinks, the same inflammation, blistering, ulceration, destruction of the gastric juice, and *non*-digestion of aliments are seen to occur, just as I have described to you, in the mouth and in the test-tube. And it is most worthy of notice, that excepting slight headache and furred tongue, the man himself had no feeling of pain or other warning of the serious injury done to that important organ. Why had he not? you will naturally ask. Because the stomach had no nerves of ordinary sensation, and a great amount of disease is often present in that organ without the patient feeling pain there. A perfectly healthy man never feels that he has a stomach, and it is only when disease or injury becomes severe and persistent, that, as a rule, pain is felt. How mischievous then is the taking of alcoholic drinks, particularly during meals! How utterly absurd the popular delusion, that they assist or promote digestion!! And how atrocious the quackery of *prescribing* these drinks for such a purpose. So much is this the case, that Professors Tod and Bowman in their great, recent and standard work—"The Physiological Anatomy of Man"—declare, that "were these drinks not rapidly absorbed from the stomach, it would be utterly impossible that digestion could go on in those who use them!" And where do they go then, when absorbed from the stomach? They pass into the blood. I shall not describe all the mischief they do to that most important fluid—suffice it to say, that alcohol robs the blood of its oxygen, lowers its temperature below its healthy and natural standard, and causes the retention of carbonic acid and effete, decaying matter in that fluid. Take a piece of paper, dip it in spirits, and hold it in the flame of gas or of a candle, the paper will not burn or be in the least injured until all the alcohol is burned off. Put gunpowder in a saucer, cover it with alcohol, set fire to it, and the powder will not explode until all the alcohol is burned off. Why is this? It is because the alcohol has such a great affinity, attraction, for the oxygen of the air (without which nothing, generally speaking, can burn), that even paper and gunpowder cannot get a supply until all the alcohol is exhausted. The very same takes place in the blood. The

oxygen of the air, which we continually breathe, is constantly burning the charcoal of the starch, sugar and oily matters taken in as food, and—mark this well—also the effete or worn-out matter of our system, the refuse of the wear and tear of our bodies; thus serving the double purpose of keeping up the heat of the animal frame, and preparing the waste matter for being thrown off by the lungs, kidneys, skin and bowels. Now alcohol, to a great extent, prevents all this, as long as it remains within us. Davy performed the following experiment. Place the bulb of a delicate thermometer under the tongue of a healthy person, shut the mouth and raise the head, you will find that the mercury rises to about 98°; take it out and give two glasses of wine or an equivalent quantity of any other alcoholic drink, and in four minutes replace it as before, you will find that the mercury has fallen, and it falls for four consecutive hours! The late Dr. Prout measured the quantity of carbonic acid thrown off by the lungs under similar circumstances, and found, that *it* also was diminished for four consecutive hours. Now the amount of carbonic acid expired, is an exact equivalent of the amount of combustion and heat produced within the body; and hence Prout's beautifully corroborates and proves the truth of Davy's experiment; and I may add, that these experiments and results have been amply and repeatedly confirmed by many of the greatest physiologists in Europe. You will now perceive the mischievous delusion of believing that these drinks warm you, or fortify you against the results of a low temperature, the fact being that they do the very reverse, as the universal experience of our Arctic voyagers has amply testified."—*From a recent Lecture by Dr. Macculloch, of Dumfries.*

PERILS BY THE WAY.

(Continued from page 365, vol. vii.)

Life has been fitly represented as a rapid stream, which bears us onward amid changing circumstances and ever-shifting scenes. So Edwin found it. Only a few fleeting years have passed away since he became a parent, and in discharging the duties of that relationship, it has been his constant endeavour to exhibit the uniform consistency of Christian character. But now he feels more deeply the claims of his increasing family; and a promising opening having presented itself, impressed with his growing responsibility as a father, and influenced by the advice of a few of his friends, he is induced to look towards a new and more lucrative sphere. But there are others who question the wisdom and safety of the step; in particular his kind friend, Mrs. G., who has strange forebodings, which make her deeply anxious in the prospect of such a change. "He will be brought more closely into contact with the busy world—will be thrown much into mixed society—will be exposed to a new class of influences, which, unless firmly and prayerfully withstood, must prove prejudicial to his religious character; and will he retain his integrity amidst these new scenes of temptation?" Mrs. G. felt that she had good reason to think highly of Edwin's stability; but she knew that the change would be great, and such were the thoughts which disturbed her mind on the occasion. There appeared to be several points of danger, but there was one of which neither Edwin nor his friends had the least suspicion. Had any one so much as hinted at it, he would have been considered uncharitable and unkind. Let those who speak tauntingly of a brother's *weakness and cowardice*, remember that there are conditions in life which greatly shelter human weakness, and that how much we owe to moral principle on the one hand, or to the absence of temptation on the other, is best known to Him who "searcheth the hearts and trieth the reins of the children of men." We are now in health, but we know not how it would be with us if we were removed to a climate much warmer or colder than our own, and we know less of ourselves morally than physically. It was not without a severe struggle that Edwin relinquished a post of duty endeared to him by associations never to be forgotten. He thought he had "counted the cost;" but as the time of his removal drew near, he found that it would be much more difficult and painful than he had at first anticipated. There were so many ties which had a greater hold upon his heart than he had

imagined; so many acquaintances which had sprung up and ripened into friendships, with which his removal would necessarily greatly interfere; but most of all, his separation from Mrs. G., and the cessation of that daily intercourse with her which had been to him so important a means of improvement and enjoyment, the painfulness of which was considerably enhanced by the unfavourable view which she took of the subject. However, Edwin had given his word, arrangements had been entered into, and a sense of honour bound him to his engagement. Then there were those bright prospects of future prosperity which, in the first instance, had influenced his decision, and which, for the sake of those dependent upon him, he earnestly hoped to realise.

During this severe conflict the wings of time appeared to move more swiftly than ever; the weeks flew past, and brought on the day of Edwin's first appearance in his new sphere. The congratulations and good wishes of friends were acknowledged with pleasant smiles and cheerful expressions of humble reliance upon Divine Providence quite befitting the occasion. As weeks and months rolled on, those who attentively observed Edwin's deportment saw plainly that his mind was fully alive to the importance of his new position, and that he was prepared to display great business tact and energy in meeting its pressing claims. So blind are we to the future, that our calculations must necessarily be very uncertain; but, judging from probabilities—all that short-sighted mortals can do—we should have been pretty confident of his complete success. And what was to prevent it? His sun was high in the heavens, and his path was bright; his business operations grew larger and more profitable; his means became more abundant; his comforts multiplied, and his friends became more numerous and influential. Edwin hoped that he stood well; and who would have dared to question it? Did he *presume* where he ought to have *prayed?* Was there not *some avenue* of which the subtle adversary, unobserved, was availing himself? Was there not some form of temptation, under which there lurked an inexpressible evil? Was there not a *worm* at Edwin's *gourd*, though he knew it not? "Be not high-minded, but fear. Let him that thinketh he standeth take heed lest he fall."

Not more than six years have elapsed since we left Edwin, with regard to business matters, a rising man. Let us pay him another visit, and ascertain how things go with him. The joint names of W. and S., in large characters, over the entrance to the premises where we last saw him, assure us of his interest in the firm; while the part which he is seen to take from day to day, shows that the entire management of its affairs is placed in his hands—a trust for which his talents and experience eminently qualify him. It is now afternoon, and the calls of public duty being over, he has returned to the bosom of his family, where his faithful friend, Mrs. G., was waiting for him. How altered her appearance within the last few years! Alas! how quickly do some of the finest specimens of humanity fade, and their strength consume away! Now the almond-tree blossoms, and her tall and erect form seems fast bending beneath the weight of infirmities. But why that expression of deep anxiety and sorrow upon her once calm and benignant countenance? It would appear that reports have reached her which have made her heart sad, and she has called to know the worst, and give her best advice. There is still an air of comfort and respectability in Edwin's home. But it has been the scene of heavy affliction; death has twice invaded the family circle. Yet Emily is spared, and three healthy children still live to claim their love and protection. But where is that cheerful smile which ever gave so much loveliness to Emily's interesting countenance? Whence that tinge of melancholy which she ineffectually attempts to conceal? Is Edwin unwell? for *he* has the appearance of one who has been living too fast. And what *reports* are those which have specially occasioned Mrs. G.'s visit to-day? You will, I am sure, be afflicted to hear them, for they are serious indeed! But what has happened? Has he been unfortunate in business? has he sustained losses in trade, and become involved in his circumstances? Nay; something far worse than that. Report has said that his morality is being undermined—that

he is becoming too fond of his glass, and has been in a state of indecorous excitement through strong drink! Is this the work of some vile traducer—some masked assassin, whose tongue is as "*a drawn sword*," wounding the reputation of his unsuspecting neighbour? or is it the utterance of truth—the expression of a just alarm, produced by evidence the most conclusive? Alas, alas! the stern fact shuts us up to the confession that Edwin *has* been "*overtaken in a fault.*" The truth is, that his intelligence and respectability caused him to be much sought after, and the usages of society, yea, even of Christian society, have proved a source of temptation to him; insomuch, that that which at first he took very reluctantly, rather than appear unsocial, has, by frequent indulgence, become a snare to him. Mrs. G.'s fears were but too soon confirmed by Edwin's own statement, which was to the effect that, for some time past, he had cultivated a growing intimacy with certain professing Christians, in whose hospitality the social glass formed rather a prominent feature; that, notwithstanding his utter abhorrence of anything like an approximation to intemperance, and his decided aversion to strong drink, he had been prevailed upon more frequently than formerly to receive the potent draught, which, by repetition, had created within him an increasing appetite for stimulants; that his brain being very susceptible of their influence, he had been, on one occasion in particular, so acted upon, that, before he was aware, his self-respect and power of self-government had forsaken him, leaving him as a ball at the foot of the tempter, and an object of disgust to his friends; yes, he confessed, with much feeling, that in this way he had brought discredit upon his character, and guilt and shame upon his soul. Let the reader just review the facts of this case, as supplying a striking illustration of the peculiarly dangerous character of alcoholic drinks. Edwin is urged to partake freely of the hospitality of his friends; nor has he the least idea of abusing that hospitality. He is in good society; his Christian brother beside him advances without fear; and why should he hesitate? He must be social, and therefore he accepts the challenge to drink once more with his friend. That fatal glass brought dimness over his perceptions; it effectually disturbed the balance power of his mind; it was like a plunge into the rapids; he was borne onward by that impetuosity which alcohol naturally induces, until he had outraged the social circle, degraded himself, and disgraced his high profession.

How true it is that "intemperance often begins with unconsciousness of evil, and in connection with social feeling and benevolence of heart!" But how does it terminate? Let the reader ponder well this question, until he awakes to a just sense of the giant power and fearful doings of this great tyrant foe. The effect of this disclosure upon the mind of Mrs. G. can scarcely be conceived; the anguish of her spirit became almost insupportable. Edwin also was greatly affected—expressed much self-loathing before God, and his determined hatred of the vice by which he had fallen, promising again and again to be "more watchful in future against his new besetment." Somewhat relieved by these promises, Mrs. G. rose to depart, but not until she had uttered the sentiments of her full soul. "Edwin, my heart bleeds for you. I am distressed beyond measure. Had death removed you, even in the noon of life, while your character was yet unsullied, I could have borne it; but the thought of seeing you blighted, and the name of Jesus by you dishonoured, is more than I can endure. And must it be so? Are all my bright anticipations to terminate in a scene black with darkness, wo, and despair? Oh, no! you are too well known and respected to be easily discarded by your friends; and as you see the evil, deplore it, and resolve to guard against it in future. I will yet indulge the hope of seeing you escape the meshes of this debasing sin, and make a firm stand against the grand adversary."

Poor Emily, who had been a sorrowful witness of this affecting interview, sighed deeply, and looking up through her tears, said, "Heaven grant that it may be so!"

(To be continued.)

John Hunter believed that when there was only one daughter and several sons in a family, the daughter was always of a masculine disposition; and that when a family consisted of several daughters and only one son, the son was always effeminate.

JUNE AND ITS WILD FLOWERS.

(Continued from page 377, vol. vii.)

THE large-flowered species *(pinguicula grandiflora)* blossoms in May, on marshy grounds, but is better known as a garden flower. "Few plants," says Dr. Hooker, "can exhibit a more beautiful appearance early in the year than a cluster of *pinguicula grandiflora*, blossoming under the shelter of a common frame. It is a mass of large, deep and rich purple-coloured flowers; well contrasted by the pale, but bright tint of its leaves." A writer in the "Magazine of Natural History" says of the common butterwort *(pinguicula vulgaris)*, that, upon pulling up the plant from the earth somewhat roughly, "the flower-stalk, previously erect, began to bend itself backwards, and formed a more or less perfect segment of a circle. So also, if the specimen is placed in a botanical box, it will soon be found that the leaves have curled themselves backwards, and now conceal the root by their revolution."

The creeping cinquefoil *(potentilla reptans)* weaves its tapestry of pretty leaves and yellow-velvet blossoms over the mead, or on the hedge-bank; and now, too, we may find the smaller blossoms of the tormentils *(tormentilla)* which are very nearly allied to the potentilla, and the roots of which are used by the natives of the Orkneys and the Hebrides in tanning, and are considered to yield a better tanning material than even the bark of the oak. Loudon states, that in the isles of Tirey and Col, so much land has been destroyed by digging for these roots, that the inhabitants have been prohibited the use of them. In many countries, they are used for dying red.

And now, too, some of the flowers of the corn-field spring up, and tower above the daily lengthening corn. The viper's bugloss *(echium vulgare)* is seen from a distance on the chalky hill, the barren wall, or the heap of rubbish, and too often on the corn-lands. Crabbe, when naming the wild flowers, which are so unwelcome in the sterile corn-fields near the sea, gives to the bugloss a prominent place:—

"Rank weeds which every art and care defy
Reign o'er the the land, and rob the blighted rye;
Here thistles stretch their prickly arms afar,
And to the ragged infant threaten war;—
Here poppies, nodding, mock the hopes of toil—
Here the blue bugloss paints the sterile soil:—
Hardy and high above the slender sheaf
The shining mallow waves her silky leaf:
O'er the young shoot, the charlock throws a shade,
And clasping tares cling round the sickly blade."

That the bugloss "paints the sterile soil" is very evident from its places of growth; yet Loudon says truly, it is perhaps the handsomest of our native flowers. About Cambridge, where the country, by its barren soil and stunted vegetation, reminds us of the sea-coast, the bugloss is very common, and is called by country people, cat's tail.

The foliage of this flower is so thickly beset with prickles, that even those animals, which, like the donkey, browse on the thistle-tops, shrink from its spiny leaves and stems; and Professor Martyn observes, that when the bees pause in their flight, to suck the honey from its rich blue bells, their delicate wings are torn before they can make their escape from the plant. The same writer, speaking of its frequency in Cambridge, among the spring-corn, says, "that the agriculturists of that land have remarked, that it appears most plentiful every third year, when the fields are quite blue with its flowers."

The general name of viper's bugloss is common to the plant in several countries of Europe. Thus the Spaniard calls it *herba de la vibora;* and the Frenchman *la viperine;* and it is amusing to trace the odd fancies which led to its being thus designated. The spotted stem resembles the skin of a snake, and the seeds are each like a viper's head; and our forefathers, who looked upon these marks as the signs of some corresponding virtues, inferred that the plant must heal the bite of a viper. On the same principle the consumptive patient hoped for relief from the lungwort because of its spotted leaves; and who, in those hopeful, trusting days, doubted that the pretty hepatica of the garden, with its lobed leaves, so like the liver, was created for the benefit of the sufferer under the gloomy liver-complaint? In looking over the works on plants, written a few centuries ago,

one might infer that snakes, vipers, and serpents abounded in our rural districts; and so many specific remedies are given against their bites, that surely none but the ignorant need have suffered from their effects. The very sight of the viper's bugloss would, according to Gerarde, drive vipers away from the spot, and the seed of the larkspur had, he says, a still more powerful influence. "Its vertues," says he, "are so forcible, that the herbe only thrown before the scorpion, or any other venemous beast, causeth them to be without force and strength to hurt; insomuch that they cannot move or stir until the herbe be taken away." Yet Gerarde was a good botanist and an intelligent man, and these strange notions belonged rather to people of those times in general, than to an individual.

The corn gromwell *(lithospermum arvense)*, a plant about a foot high, with narrow-pointed leaves, covered with white hairs, and seeds hard as flint, is now very general in the corn-field: and a plant called the shepherd's needle *(scandix pecten)* attracts observation by its peculiar seed-vessels. This plant is about a foot high, with clusters of very small white flowers. When the flowers die, they are succeeded by bunches of seed-vessels, so large that no one would suppose that they belonged to so tiny a flower. The seed-vessels are often three or four inches in length, and they taper into a sharp point at the summit; hence the rural name of the flower, which is also called Venus's comb. It is believed that this plant was eaten at table by the ancient Greeks.

Several poppies are in bloom during this month, and in the course of July, all our six wild species of this beautiful flower enliven the fields. Ornamental as they are to the pastoral scenery, waving to and fro their large, handsome heads, yet they are very annoying to the cultivator. The common red poppy (*papaver rhœas*), with its globular flower, is general in all parts of England, and sometimes called cheese-bowl and head-ache. It is cultivated in Flanders, and several parts of Germany, for the sake of its seeds, from which an excellent oil is made, and used as a substitute for olive-oil. The ancients had a very different opinion of the poppy from that entertained in modern days; for, instead of regarding it as injurious to the corn-field, they looked upon its gay petals as a trophy of triumph to the land-owner, since no corn was thought good which had not an admixture of the poppy: and when the reaper offered to Ceres his thank-offerings for a good harvest, the brown ears of corn and the seeds of the poppy served for an expression of his gratitude.

All the poppies possess the narcotic principle in a greater or less degree, and the white poppy especially (*papaver somniferum*) partakes it. It is now common in corn-fields. It is thought that this flower was originally brought us from some parts of Asia. It is, in several Eastern countries, cultivated for the purposes of opium. Upon breaking the stem of this flower it may easily be seen to contain a quantity of thick white milk; and the opium is made by wounding the poppy-stem, and leaving the milk to harden in the sun. It is then formed into flat cakes, and covered with leaves, and in this state we receive it from the East. The Turks mingle in their opium-cakes a variety of syrups made from several fruits, and stamp these sweetmeats with the words "*Mash Allah*," the work of God. Alas! that pious words should have so little real meaning, and should be used as a sanction to that degrading intoxication, and destruction of bodily and mental faculties, which is the sad result of opium-eating!

The white poppy is planted in many fields of England for its seed-vessels, which are used in medicine and surgery. It was formerly called Joan silver pin.

Poppy seeds, in the East, are commonly sprinkled on the tops of cakes and sweetmeats. Several seeds are, indeed, used in this way, as we should use caraway-seeds, and even the bread is thus adorned with the seed of the poppy or some other plant. The cracknels spoken of in the first book of Kings, when Jeroboam, who caused Israel to sin, sent them as a present to the prophet Ahijah, when he asked of the fate of his sick child, are supposed by Kitto to have been a kind of cake, sprinkled over in this way with poppy-seeds, as the original word implies a spotted cake.

Poppies are found in all countries, and under all climates, from the north pole to the sandy deserts of Africa. Brilliant as is our wild scarlet flower, it is much brighter in some other lands. In the corn-fields, in some parts of France, it has a much richer tint than in the English field.

An interesting phenomenon is sometimes exhibited by red and orange-coloured flowers, and also, in a less degree, by yellow-tinted blossoms. It is that of a light of their own colour playing about the plant. This is not the result of an inflammable vapour igniting on the approach of a candle, but seems rather, as Sharon Turner has remarked, "an actual secretion of light additional to their usual show." The cause of this phenomenon has not been discovered, but it seems dependent on an electrical state of the atmosphere. It has not been seen during the bright sunshine, but has been observed after sunset, in several flowers, as the marigold, the different species of poppy, the scarlet geranium, and even in the heartsease.

A bright light is given out not by the blossoms alone of plants; several roots show a brilliance in the progress of decay; this, however, is of a phosphorescent nature. A luminosity so powerful as to enable the bystander to read by it, issues from the common potato, when in a state of putrefaction; and Professor Lindley mentions that an officer who was on guard at a barrack near Strasburg, during night, thought that the building was on fire, and, upon examination, found that the vivid light which had alarmed him proceeded from a heap of potatoes contained in a cellar. The vast coal-mines of Dresden are said almost to realise, by their lustrous illumination, the appearances described in the fairy tales of the East. In those spots, into which the sun's rays never penetrate, some species of fungus of the genus *rhizomorpha*, growing over the roofs, pillars, and other parts of these subterraneous places, emit a light so brilliant and powerful as almost to dazzle the eye of the beholder; though it is sometimes so soft and subdued as to resemble a faint moonlight. This fungus is found in many other caverns besides those of Dresden, and adds greatly to the interest which such scenes excite in the traveller.

Among the flowers which, during this month, annoy the farmer, though they please the botanist, the corn cockle *(agrostemma githago)* is very frequent in the field. The corn cockle is named in the book of Job; thus the patriarch says, "Let thistles grow instead of wheat, and cockle instead of barley;" but as the word which our translators have rendered cockle is expressive of an unpleasant odour, the poppy is, by some commentators, thought to be here intended.

That very common flower, the scarlet pimpernel *(anagallis arvensis)*, is now smiling by the roadside; it is perhaps better known as the poor man's weather-glass, or shepherd's barometer; both names given on account of its closing before rain. This peculiarity was noticed many years since, and Gerarde thus writes of the pimpernel: "These plants in summer, and especially in the month of August, at what time the husbandmen, having occasion to go to their harvest work, will first behold the flower of pimpernel, whereby they know the weather that will follow the next day after; as for example, if the flowers be close shut up, it betokeneth rain and foul weather; contrariwise, if they be opened abroad, fine weather." Though we must not expect so much from the pimpernel as this would promise, yet it is more to be depended on than other wild flowers, which close before rain. It must be remembered, too, that it closes up for the day by twelve o'clock, however bright the sunshine.

The flax *(linum usitatissimum)* is now in bloom in many wild places. The pale-blue erect bell is very frail, falling off even at the touch. This is a plant of much interest. The strong fibres of its bark form the valuable flax of commerce; these fibres, when separated from the plant, compose the tow, which being spun into yarn, is afterwards woven into linen. The stalks require macerating, in order to separate the fibrous strings from the more fleshy substance, and they are laid under water, either in tanks or ponds, or they are strewn over the grass-field, for the dews and sunshine to prepare them for

use. Fields of flax have been cultivated from the earliest antiquity, for making linen; and it appears from the Scriptures, that a numerous class of people were engaged in the manufacture, among the ancient Hebrews and Egyptians. The prophet Isaiah, when predicting the wrath of God, and the coming desolation of the land of Egypt, foretells that "they who work in fine flax, and they that weave networks, shall be confounded; and the "fine-twined linen, wrought with needle-work," was ordered for many purposes, in the ornament and service of the tabernacle, which the Lord commanded that the children of Israel should make. The mucilaginous seeds of the flax are much employed in surgery, and the flower is so elegant, that it is frequently planted in gardens.

The small common white flax *(linum catharticum)* is abundant by roadsides, both in England and France, and grows in such profusion about Versailles, that, small as are its pretty flowers, they make the field quite white by their number. It is often called mill-mountain: country people gather and dry it, as a cure for rheumatism; and Professor Martyn says, "that it is an excellent medicine in that painful complaint."

Even the barren wall bears an aspect of gaiety now, for it is thickly covered with patches of the bright yellow flowers of the stonecrop *(sedum)*, which cluster both here and on the cottage roof. The Latin name of the stonecrop is derived from the word "*sedēre*," to sit, because many of the species may be said to sit on the walls, clothing them like mosses. The yellow biting stonecrop *(sedum acre)* now in blossom, grows also on sandy hills, and is often planted on rock-work in gardens; it is very acrid, and when bitten, its juice leaves on the tongue a flavour as pungent as that of pepper; hence it is frequently called wall-pepper. It has also the old familiar names of gold-dust, and gold-chain. In former days, too, it was known as Jack of the buttery, country pepper, pricket, and bird's bread. It is given in beer or milk to invalids: if laid on the skin, it will quickly raise a blister.

We have eleven wild kinds of stonecrop, which are, with one exception, very similar to each other in nature and habit though several have red or white flowers. The plant commonly termed orpine, or livelong *(sedum telephium,)* differs much from the other stonecrops; it has a spotted stem and instead of the closely imbricated foliage of the other stonecrops, has broad leaves; its purple flowers appear in July, on waste places, or field borders; its leaves are occasionally boiled and eaten. One would wonder at the taste of those who selected them for this purpose, as even after boiling, they retain a considerable portion of acridity and though wholesome, are not more so than hundreds of common plants, some of which, like the chickweed and nettle, are used at the poor man's table.

One species of stonecrop, the white orpine *(sedum album)*, is pickled as samphire. A large white kind, called English stonecrop *(sedum angelicum)* is very ornamental to the rocks on the Highlands and Hebrides, scattering its white stars by thousands on their else barren surfaces, and supplying their want of verdure by its thick green leaves.

On the summit of the wall, or rock, or still more often at its base, we may now find the small nettle *(urtica urens)*, full of its green bloom; we have three native species, easily distinguished, even by persons unacquainted with botany, by the circumstances respecting them. The lesser nettle is seldom above two feet high, its leaves are small, and it is not a conspicuous plant; but the great nettle *(urtica dioica)* cannot be overlooked, and grows by every wayside, often to the height of three feet. The Roman nettle *(urtica pilulifera)* is not much unlike it, but is comparatively rare, and found chiefly near the sea; this is by far the most virulent of our stringing nettles, and the pain inflicted by its venom remains for several hours. The old English writers had a legend, concerning the introduction of this nettle into our country, which was very generally believed, though, as Ray observes, it is not very likely to be true. Our great antiquary, Camden, records it in his "Britannia." The Roman nettle was known to have been found growing at Lidd, near Romney, and also in the

streets of Romney. Julius Cæsar landed at Romney, with his soldiers, and remained there for some time, on which account the place is supposed to have been called Romania, of which its modern name is a corruption. The old antiquary relates, that "the soldiers brought some of the nettle seed with them, and sowed it there for their use, to rub and chafe their limbs, when, through extreme cold, they should be stiff and benumbed, being told, before they came from home, that the climate of Britain was so cold, that it was not to be endured, without some friction to warm their blood." No plant, certainly, could better serve to chafe and warm their limbs; but how far the glow would be pleasurable, even to the hardy Roman soldiers, must be questioned.

(To be continued.)

VARIETIES.

There is no pleasure which men of every age and sect have more generally agreed to mention with contempt than the gratifications of the palate; an entertainment so far removed from intellectual happiness, that scarcely the most shameless of the sensual herd have dared to defend it; yet even to this, the lowest of our delights, to this, though neither quick nor lasting, is health with all its activity and sprightliness daily sacrificed; and for this are half the miseries endured which urge impatience to call on death.

Chinese Medicine.—The following appears in the *Opinione* of Turin:—"A missionary who has jus returned from China states that, in that country, a kind of polygala is successfully used as a cure for hydrophobia. This plant has thick leaves, and its stem contains a milky juice; it grows to the height of two feet, with a thickness like that of a goose-quill. The flowers are small, and of nearly the same colour as the leaves. Its root is perennial, and annually produces new shoots and stems. There are several kinds of polygala in Europe, two of which are used in medicine against the bite of reptiles. In order to apply this plant as a remedy, the Chinese gather a handful of the stalks, crush them, and cook them in water in which about two pounds of raw rice have been washed. The decoction is effected by means of a water-bath. The juice is then strained, and half a quart of it is administered to the patient, if he is an adult, and this draught is continued for several days, gradually diminishing the dose. Sometimes a single dose suffices for a radical cure. It is also administered to animals with their food, large cattle requiring a much larger quantity."

Toothache.—Two things blunt the general sense of horror which would else connect itself with toothache—namely, first, its enormous diffusion; hardly a household in Europe being clear of it, each in turn having some one chamber intermittingly echoing the groans extorted by this cruel torture. There—namely, in its ubiquity—lies one cause of its slight valuation. A second cause is found in its immunity from danger. This latter ground of undervaluation is noticed in a saying ascribed (but on what authority I know not) to Sir Philip Sidney—namely, that supposing toothache liable in ever so small a proportion of its cases to a fatal issue, it would be generally ranked as one of the most dreadful maladies; whereas the certainty that it will in no extremity lead to death, and the knowledge that in the very midst of its storms sudden changes may be looked for, bringing long halcyon calms, have an unfair effect in lowering the appreciation of this malady considered as a trial of fortitude and patience. No stronger expression of its intensity and scorching fierceness can be imagined than this fact—that within my private knowledge, two persons who had suffered alike under toothache and cancer, have pronounced the former to be, on the scale of torture, by many degrees the worse. In both there are at times what surgeons call "lancinating" pangs—keen, glancing, arrowy radiations of anguish; and upon these the basis of comparison was rested—paroxysm against paroxysm—with the result that I have stated.—*De Quincy.*

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No. 240—Vol. VIII. SATURDAY, JULY 25, 1857. Price 1d.

THE LATE TRIAL OF MISS M. H. SMITH, AND THE POISON-SELLERS.

If anything could show the evil of having shops for the unrestricted sale of poisons, the facts which have been elicited by this trial have most effectually done it. There were no doubts in the minds of the jury that arsenic was the immediate cause of the death of Emile L'Angelier, but it was difficult to determine by whose hand the poison was administered. The fact that it could be so easily purchased without suspicion to the buyer, or blame to the seller, occasioned one of the greatest and hardest questions the jury had to consider. The extensive introduction of Botanic Medicines would be one of the most effectual means of preventing the frequent occurrence of those horrible crimes which disgrace our country. The destructive drug is always purchased under some pretext, and not with a distinct announcement of the real intention of the buyer; but if it and all other poisons were for ever and entirely excluded from the druggist's shop, the great facility for obtaining them being removed, there would no doubt be a considerable diminution of capital crime. The purpose of suicide or murder has only to be formed, and with a few pence, the means for carrying the purpose into effect, may be found in almost any street of any of the large towns. It is thus that many purchase poisons, administer to themselves or to others, and lives are destroyed without attracting the attention of the officers of justice, or receiving the investigation of a coroner's inquest. At the present time we know, from credible authority, that in some of the densely populated manufacturing districts a poison, is daily sold, which is gradually weakening the physical energy and the mental power of the working classes. This poison is sold in the druggists' shops without any restriction or inquiry. It is only a wonder that sudden deaths are not more frequent than they are among these people. The number of deaths in these districts is greater than the ordinary amount of mortality in the other counties and neighbourhoods where this deleterious practice is unknown. Life is but a dreamy, feverish existence, with these deluded multitudes. In the morning they resort to the chemist and buy the quantity of the deadly drug which they intend to consume during the day, and in the evening they may be seen at the gin-palace endeavouring, as they say, to restore the equilibrium of their spirits by pouring down large potations of alcoholic drinks. It is not difficult to understand how it is that among a population given up to such practices there should be numerous cases of *delirium tremens*. When this calamity comes on man or woman, there is no guarantee for their conduct. The mind is then like a rudderless vessel, driven by every gust of passion, and without power or will to restrain itself from deeds which gloomy forebodings or revengeful hate may suggest. The depression produced by certain narcotics often contributes to the same mental phenomena as those occasioned by the use of alcoholic drinks; and that dejection is deep indeed when both the active agents in producing

it are freely used. Jealousies, heart-burnings, groundless imaginings, the proximate causes of murder and suicide, are the effects of a morbid mental restlessness, arising from the excitement of narcotics and stimulants. Since, however, it did not transpire in the trial at Edinburgh to what extent any of the parties implicated were influenced by strong drink, we cannot with certainty assert anything upon the subject; but yet we venture to think that there were letters published in connexion with the case under consideration which would not have been written, unless the whisky inspiration had been very strong.

But to return to the point which we wish most forcibly to set before our readers, and it is this: that in the same proportion as Medical Botany is understood and extensively practised, the probability is that these dreadful deeds will be less frequent; so that, if the principles of botanic science and its medicinal properties were known throughout the kingdom, and the poison-selling drug-shops closed, we have no doubt that a murder by poison would be an event of very rare occurrence, and then that such a murder would be more easily traceable to its perpetrator, than it can be now under the present *regime* of drug-selling. If this be the case—and no one who knows anything of the subject will question that it is the true light in which it ought to be viewed—then it is a duty we owe to humanity, and especially to our country, to exert every energy we have at command, to diffuse a knowledge of Medical Botany, not only to promote health and reduce the numbers on the bills of mortality, but to prevent crime, to diminish the demoralising influence which every capital offence exerts on the minds of the young, and to lessen the expense to which the country is annually put by criminal prosecutions. Medicine necessarily involves the idea of something that possesses a curative and restorative property. This definition applies to all the medicines prescribed in Dr. COFFIN'S "Guide to Health," and to all that are in general use among Medical Botanists in this or in any other part of the world; but poisons do not come under this definition, and therefore ought not to be sold at shops avowedly open for the sale of medicines.

LIGHT IN RELATION TO LIFE.

SINCE heat, electricity, magnetism, light, and the nervous energy are proved to be intimately related to each other, we need no longer wonder that the sun should appear to be the fountain of all animation to this earth. The consideration of the effects of light on the human being, involves also that of the influences which light seems to call into action, the chief of which, as regards its manifest operation on vital development, is *caloric*, or that which causes the sensation of heat. The Almighty regulates all nature by the combination of opposing forces; and as attraction gives origin to form and density, so heat, acting as the divellent force, imparts to bodies a tendency to expand. It is, therefore, essential to fluidity and motion, which sufficiently demonstrates its importance in everything appertaining to life. From the icy home of the Esquimaux, to that of the savage that burrows in the sands of Sahara, we find man everywhere exhibiting habits and characteristics in a great degree derived from the peculiarities of his position with regard to warmth. Man, however, does not thrive simply as an animal: his physical frame may grow to perfection, amidst the general luxuriance of vegetable and animal life in a burning clime, provided water bursts from the rock or distils from heaven; but still he is intellectually a dwarf, unless intelligence combine with his necessities to enlarge his thoughts and stimulate his exertions. Where the very sun which enlightens him, at the same time excites his blood with a fervency that unfits him for tranquil reflection, and exalts his passions, whilst depressing the springs of mental vigour, of course the tide of natural tendency must ever be towards vice and degradation, not because vice springs from sunshine, but because the human heart inherits evil dispositions, and, therefore, unless restrained by religious conviction, always, and, as a matter of course, takes advantage of every opportunity to indulge its selfish licence.

Knowing the nature of our dependence

on the state of the brain, and of the blood, we might determine the locality most favourable to mental and moral development, and no one could doubt the probability of finding what we find, in fact, that in the temperate zone, man would appear in the highest state of intellectual cultivation. But concerning the effects of climate on mental action, we need not now expatiate. It is evident, that the progress of the human race, from its origin in Eden, has been influenced almost as much by climate as by knowledge. We can exemplify the effects of climate, in some measure, by our experience of seasons. Who has not felt the tone of his soul in sympathy with the changes on the face of nature, and modified by degrees of temperature? As in warm climates, passion and imagination are apt to be exalted at the expense of the deliberative faculties, so we feel the enthusiasms of fancy most energetically during summer. When the bloom and verdure of rural scenes are at their height, and the leaves and flowers tremble with life, responsive to the light that dances in the dew-drops which begem their edges, and the passionate songs of birds burst from the green vistas of the grove in a flood of joy, and all nature seems bathed in satisfying brilliance, how can we but feel a genial influence pervade our every fibre? No dream of bliss then appears extravagant. The vivacity and colouring of Eastern tales, and the romances of uncalculating love, seem not then so perfectly unreasonable. The philosophy of physics looks as mean and meagre as a skeleton articulated with wires, while we enjoy the animation of a spirit for which materialism cannot account, and which the coldest theorists cannot conquer. Yet, probably, Milton's picture of paradise is but a summer rhapsody, and our highest ideas of an imagined heaven are due to the delights we have experienced from visible beauty, under the glowing and glorious influences of that universal Apollo, the sun, the only perceptible source of the *dry splendour* to which the lugubrious Heraclitus thought he could trace all the powers of the mind. We, however, know better; we trace our energies to a source above the solar system, and feel our sufficiency to exist only in our connexion with the Father of lights and of spirits, who is pleased to minister, by so many means, to our spiritual progress through the medium of material forms. Our souls spring not from dust, but are produced on earth from a higher sphere, the ordinances of which still cling to their being, though commonly lost to our perception amidst the impressions crowding on our senses.

Although Ptolemy and Posidonius declare the south to be best calculated for the study of divine subjects, and Plato, Hippocrates, and Galen, say that cold humidity produces stolid souls, nevertheless, all we learn from facts, as to sunshine engendering genius, or of gloom begetting stupidity and forgetfulness, is simply this: the mind really triumphs over all disadvantages, and man, when inspired by motives derived from a knowledge of his eternal destiny, his maker's interest in his being, equally evinces the loftiness and grandeur of his endowments in every quarter of the habitable globe. Whether in the frozen regions, or in the heart of Africa, the cultivated mind still exhibits its power to devise and to discover. Intellect must reign, and that because true religion is its living soul and quickening spirit. It cannot yield to error, it cannot sink at the sight of difficulty, but must gain fresh energy from every opposition, for its business is to conquer all enemies, and to confer a resistless life on industry and science.

Those who are accustomed to consider disease, detect many tendencies which others overlook. Physicians know there are critical years, days, and hours belonging to everybody; certain periods in which susceptibility is increased or altered. There is a mysterious law of nature indicative of powers in action beyond the ken of science. A sort of sympathy exists between the body and the globe we dwell on, giving a tendency to the recurrence of certain states at certain intervals, and so controlling, by time and measure, the influences which operate upon us, that many of the events which most nearly concern us may be calculated with arithmetical precision.

The paroxysm of a daily ague comes on when the rate of our breathing is lowest, and that of alternate days, when our breathing is at the highest; for, according to the degrees of light and heat, we consume different quantities of oxygen; and as the alternations of rest and action are regulated by the sun, so our nervous systems, acccording to their state, are subjected to periodic alterations. Then, again, it is observed that there is a correspondence between the variations of the magnetic needle and the daily condition of function. The variations in temperature, too, and of the barometer, have certain regular periods which affect both body and mind, and there is reason to believe that all these influences extend through all animated beings according to a certain order in relation to number. The ratio of all these influences may probably be measured by degrees of light; and as this agency most distinctly stimulates our faculties while revealing to our sight almost every object concerning which we reason, it will be proper for us to reflect a little more fully on the relation which it bears to our wellbeing.

Action, life, feeling, thought, are all associated with light. Ere it flew forth, like a pervading spirit, obedient to the word of God, this earth was unadorned, unfurnished, lifeless; but wherever light has penetrated, there also beauty and order, will and mind, are manifested through all the variety of appropriate organisations. Every colour and every shape of visible creation, discourses to man's spirit of an embracing, informing vivifying power, which can only be shadowed forth by the sun, and of whose nature and benevolence light is but as the written name.

We possess proof of the astounding fact that solar light causes a regular succession of movements in the medium through which it passes, to the amount of five hundred millions of millions in a second; and it is because this vibration acts upon something in our brain capable of vibrating in a corresponding ratio, that our souls are put in such relation to light that we can enjoy vision. The time of different colours, however, is not the same. Our sense of sight is affected by red four hundred and fifty-eight millions of millions of times in a second; by violet, seven hundred and twenty-seven millions of times; and by yellow five hundred and forty-two millions of millions of times in a second. Of course, therefore, different colours differently affect our souls. Throughout nature these undulations of light are so modified as to be productive of a vast variety of enjoyments to various creatures, and to operate in such a manner upon their nerves and faculties as to guide them to the fulfilment of those desires which colour and shape contribute to excite.

(To be continued.)

DR. GUY'S LECTURE ON THE EFFECTS OF ALCOHOL.

We transcribe the following brief extract from a lecture recently delivered by Dr. Guy, of London, on "Temperance in its Physical and Moral Aspects." The statistics of Mr. Neison, the eminent actuary, serve in a remarkable manner to support the views and statements of medical men, as to the poisonous effects of alcohol on the human system.

"Mr. Neison's inquiries embrace, among other topics, the causes of the high mortality of intemperate persons; and he amply confirms the experience of medical men in this respect. It is well known among medical men that there is no poison in existence which gives rise to disease in a greater number of important organs than alcohol does. It occasions grave disorders of the stomach, liver, lungs, kidneys, and brain, is the acknowledged parent of gout, and, in extreme cases, so impairs and undermines the constitution as to make the most trifling external injury certainly fatal, and recovery from internal diseases of ordinary severity almost hopeless. Thus it is that a slight wound or scratch, which a temperate man would laugh at, often lays the brewer's drayman on a bed of sickness, and baffles the skill of the most accomplished surgeon; and thus it is that an attack of consumption, from which a temperate man would recover for a time, proves quickly and certainly fatal to the drunkard.

"Mr. Neison's returns confirms this experience of medical men. He finds that of the 357 deaths of intemperate

persons, ninety-seven, or upwards of a fourth, are caused by diseases of the brain and nervous system. This is nearly three times as many in proportion as die from the like causes among the general population of England and Wales of the same sex and ages: 94 deaths, being about the same proportion of the total number of deaths, are found to be due to diseases of the digestive organs, the destruction of life from this class of causes being very nearly four times as great as among the general population of England and Wales. About the same proportion (another fourth, that is to say) is due to diseases of the chest, which are somewhat less frequent than among the general population, the destruction occasioned by diseases of the brain and digestive organs having left a smaller remnant to perish by diseases of the heart and lungs. These results are very striking; but Mr. Neison's figures do not shew what every day's experience teaches the medical man, that it is very rarely indeed that the confirmed drunkard dies of one disease. Generally speaking, every important organ of the economy—heart, lungs, stomach, liver, kidneys, brain—is the seat of the same diseased condition, creating such a hindrance to the circulation of the blood and all the necessary processes of secretion, or separation of fluids useful or effete, as well as to the mechanical movements of the heart and lungs, that dropsy is the only possible relief—a relief necessarily temporary, and itself an indication of rapid decay."

FECUNDITY OF FOOD PLANTS.

Formed for the sustenance of men and animals, the special adaptation of tribes of food plants to different climates, strikingly reflects the design of the all-bountiful Creator, and has reference, we may reasonably conclude, to the utmost possible diffusion of the human race, according to the announcement in relation to the primal pair:—"Be fruitful and multiply, and replenish the earth." Where one class fails, another appears to supply its place. Wheat, the vegetable food of the inhabitants of temperate latitudes, cannot be raised on the low plains of the torrid zone; but there the various tribes of men derive abundant nourishment from rice, wherever the land can be sufficiently covered with water; or, in drier situations, from the banana, cassava-root, which furnishes our tapioca, cocoa-nuts, and maize; or, in burning, arid wastes, where no other edible plant can grow, from the date-palm. The amazing fecundity also of most of the food plants illustrates the Divine beneficence to dependent creatures. The yield of wheat is very commonly sixty to eighty fold, while that of maize, on fertile lands, amounts to three hundred or four hundred fold, and a harvest is considered deficient returning only one hundred and fifty fold. A single orange-tree has been known to produce twenty thousand oranges fit for exportation. The cocoa-palm will flourish for a century, and produce annually, through the greater part of the period, a hundred of its large nuts; while an acre of land, planted with sago-palms, will annually furnish 120,500 pounds of nutritive farina. But of all plants, the banana or plantain yields the greatest mass of nutriment. The fruit is occasionally a foot in circumference, and seven or eight inches long. A cluster often contains from one hundred and sixty to one hundred and eighty fruits, weighing from sixty-six to eighty-eight pounds avoirdupois. Humboldt calculates, that from thirty to forty plants may be cultivated on the small space of a thousand square feet, which will afford, in the course of a year, upwards of four thousand pounds' weight of nutritive substance—a produce one hundred and thirty-three times greater than could be obtained from the same space if sown with wheat, and forty-four times greater than if planted with potatoes. But not more liberally than wisely have the vegetable productions which contribute to the support and gratification of man's physical nature been bestowed by Providence. That part of the sentence pronounced upon him at the fall, "in the sweat of thy brow shalt thou eat bread," is not repealed by the extraordinary fecundity of alimentary plants. The cereals, rice, and bananas are unknown in a wild state; and together with various leguminous tribes, require cultivation to a varying extent, in order to be prolific. Thus the industry

which calls forth the intellectual powers of the human race is a condition necessary to the supply; and as a general rule, where this condition falls lightly upon nations, owing to the little husbandry demanded by their food plants, they are found low in the scale of mental and social improvement. On the other hand, the question, "Doth God take care for oxen?" is well answered by the fact, that animals, not needing employment on moral grounds, and incapable of intelligent exertion, but depending upon vegetable support, derive it from the grasses and shrubs which flourish apart from terrestrial activity and skill. With equal bounty and foresight, the adorable Author of all good "causeth the grass to grow for the cattle, and herb for the service of man; that he may bring forth food out of the earth."

THE MEDICAL AND SURGICAL SCIENCES BILL.

To the Editor of the Hastings and St. Leonards News.

Sir,—The partizans who desire a State-endowed "Priesthood of Science," are more than ordinarily active this session. Besides the measures already noticed in your columns, and the new (coming) Compulsory Vaccination Bill, they have brought in "A bill for securing the more effectual promotion of the Medical and Surgical Sciences in the Queen's University in Ireland, by enabling the ratepayers of the Unions of Cork, Belfast, and Galway respectively, to provide for the enlargement and better maintenance of certain hospitals in the said cities and towns; and for the further extension of the provisions of the Act of the eighth and ninth years of her present Majesty, to endow new Colleges for the advancement of learning in Ireland."

The framers of this Bill cannot be accused of having "seen double;" but they must have had strange visions, prompting them to imagine that three are at least four, when reciting one city and two towns as "the said cities and towns."

However, the bill has a purpose, and proposes to empower a majority of the ratepayers in all or either of those places to levy rates to provide hospitals, each to contain "not less than one hundred beds for intern patients" (sec. xiii); and to admit students "to the wards of the said hospitals for the purpose of receiving clinical and other instruction from the medical officers of said hospitals," who are to deliver lectures.

The other provisions of the bill do not require present notice.

At first sight it may seem that this Bill can not much concern us at this side of the water. But vicious legislation for any part of the United Kingdom concerns the whole, and a bad precedent can readily be made to apply.

This bill has other objects than those which are avowed. One is to promote the private interests of certain medical officers and professors, at the public expense; another is to establish a convenient precedent. The taxation of a few places, in the name of science, under the pretext of the general good, would soon be discovered to be partial and unjust, and could only be regarded as a step to the long and much-coveted establishment of a State-endowed "Medical Priesthood." That is the "promotion" which is really desired. Therefore, it is to be hoped that persons who, on broad grounds, are opposed to such legislation, and ratepayers, who wish to maintain principles of economy, will successfully resist this innovation.

I am, sir, your obedient servant,

JOHN GIBBS.

Maze Hill Cottage, June 6, 1857.

DECADES OF HUMAN LIFE.

From the termination of infancy at three years of age, a decade of years brings childhood to a close, during which the mortality, steadily decreasing, comes to its minimum. Another decade terminates the period of adolescence, during which the mortality as steadily advances. A third decade changes the young adult into a perfect man, and during this period, the golden decade of human life, the mortality again diminishes; while, during another decade and a half, the mortality slowly rises, and returns at the close of the period to the precise point at which it stood at adult age. Thus the interval between the period of birth and that of adult age includes a term of twenty-three

years. The interval between the period of adult age and that when life just begins to decline from its meridian, includes a term of twenty-four years; consequently, a period more than equal to all the other epochs of life from birth to adult age is enjoyed, during which mortality makes no advance whatever. Now the term of years included in the several epochs that intervene between birth and adult age is rigidly fixed. Thus the period of infancy includes precisely three years, that of childhood ten years, and that of adolescence ten years. Within the space of time comprehended in these intervals, physiological changes take place, on which depend everything that is peculiar to the epochs. These changes cannot be anticipated, cannot be retarded, except in a very slight degree. In all countries, among all classes, they take place in the same order and nearly in the same space of time. In like manner, in extreme old age, or the age of decrepitude, which may be safely assumed to commence at the period when the mortality equals that of the first year of infancy, namely, the age of eighty-four, physiological changes take place, which, within a given space of time, inevitably bring life to a close. That space of time, in all countries, in all ranks, in all ages, or rather as far back as any records enable us to trace the facts, appears to be the same. As within a given time the boy must ripen into manhood, so within a given time the man of extreme old age must be the victim of death. Consequently, it is the interval between the adult age and the age of decrepitude, and only this, that is capable of extension. During the interval between adult age and the perfect meridian of life, comprehending at present, as we have seen, a period of twenty-four years, the constitution remains stationary, mortality making no sensible inroad upon it. But there is no known reason why this stationary or mature period of life should, like the determinate epochs be limited to a fixed term of years. On the contrary, we do in fact know that it is not fixed; for we know that the physiological changes on which age depends are, in some cases, greatly anticipated, and in others, proportionately postponed; so that some persons are younger at sixty, and even at seventy, than others are at fifty; whereas, an analogous anticipation or postponement of the other epochs of life is never witnessed. So complete is the proof, that the extension of human life can consist in the protraction neither of the period of juvenility, nor in that of senility, but only in that of maturity.

GARDEN FLOWERS OF JULY.

"The cottage garden most for use designed,
Is not of beauty destitute. The vine
Mantles the little casement, and the brier
Drops fragrant dew among the July flowers;
And pansies rayed, and freaked with mottled pinks,
Grow among balm, and rosemary, and rue;
There honeysuckles flaunt, and roses blow,
Almost uncultured—some with dark green leaves
Contrast their flowers of pure, unsullied white;
Others like velvet robes of regal state,
Of richest crimson; while in thorny moss
Enshrined and cradled, the most lovely wear
The hues of youthful beauty's glowing cheek."

CHARLOTTE SMITH.

THE sweet lavender *(lavandula spica)* is fragrant in the garden, and the cottage dame will soon gather it to lay in her drawers among her store of linen. It was named from *lavare*, to wash, because the ancients used it in baths, and the fragrant perfume which it yields in distillation is both pleasant and useful. The flower is called, in Provence, *l'espic*, and hence the foreign oil of lavender is often termed oil of spike. The lavender is found on the deserts both of Asia and Africa, diffusing its most welcome odour when little expected by the traveller. It grows wild too, in southern Europe. In our gardens it is too well known to need description, and it is still brought to market for the purposes to which Shenstone describes his schoolmistress as applying it.

"And lavender, whose spikes of azure bloom,
Shall be erewhile in arid bundles bound,
To lurk amidst the labours of the loom,
And crown her kerchiefs clean, with mickle rare perfume."

Fields of lavender are cultivated at Mitcham and Henley-on-Thames, as well as in Kent, for the oil of commerce. An ounce of oil is said to be yielded by sixty ounces of the blossoms.

There is no summer month from May

to September in which we may not find some species of phlox decking the garden. On the prairies of America, as well as in the woods of Canada, it grows to a great height, and is very abundant; but most of the purple kinds, like many flowers of the American forest, are scentless. The large white-flowered or scented phlox *(phlox suaveolens)* is now, however, in bloom, and has a very pleasant odour. A very pretty variety of this species has pure white flowers, with a pink star in the centre, gradually fading as it approaches the edges.

All the species of these handsome border flowers are natives of America. The fine-leaved phlox *(phlox setaceæ)*, with flesh-coloured blossoms, and its snow-white variety, are among the earliest-blooming species. They are low-trailing perennials, blooming in April and May. The Canadian species has pale blue flowers, and grows about a foot high; and the ovate phlox has purple flowers, and is, like the former, a spring flower.

The panicled phlox *(phlox paniculata)* is one of the most popular species. It is a tall plant, sometimes four feet in height, with numerous clustered flowers of pale lilac. This flower is very conspicuous on the plains of America. It has been an inhabitant of the British garden for more than a hundred years, and blooms in autumn.

And now that frail and beautiful flower, which blooms but for one day, then droops and dies, the lovely day lily, may be seen opening its yellow vase to receive the dew-drops of the morn. The French term it *la belle d'une jour*, and some of their writers call it the asphodel lily. Frail as it is, it is long ornamental to the garden; for though one flower may die to-night, yet to-morrow's sun shall gild another, and the root will bloom for one or two months. Both the yellow lily *(hemerocallis flava)*, and the copper-coloured species *(hemerocallis fulva)*, were known in England in Queen Elizabeth's time. The latter species is a native of the Levant, and is a much taller flower than the yellow kind, being sometimes four feet high. The flowers generally called Japan lilies are natives of China and Japan. They bear the open air well, and are handsome, and most of them fragrant flowers. The blue Japan lily is quite hardy; the white species require some protection.

Several species of hibiscus are in bloom during this and the next month. They are very nearly allied to the mallow. The shrubby kind, called Althæa frutex *(hibiscus Syriacus)*, is very generally cultivated. A large number of species of hibiscus are known to botanists, and they are an interesting tribe of plants, not only because of the beauty of their flowers, but on account of the various uses to which they are applied in the lands where they are native. Abounding in the tropical regions, they are of great value to the people of those lands, but many of them, when transplanted to our country, need protection from its climate. In the hotter regions of the continent of Asia, in India and Ceylon, some of the most beautiful species are abundant. In Africa and South America they are also wild, and even in North America a few are found, while in the West Indies, as well as in other tropical islands, a great variety exist. Like the mallow, they are remarkable both for the mucilage which they contain, and for the fibres which their stalks yield on maceration. One species, the esculent hibiscus, called *ochro* in the West Indies, is cultivated as an esculent vegetable, and is also used for thickening soups; but the English residents rarely like it as a diet. In France it is planted for the pods, which are gathered while green, and either eaten in soups or pickled like capers, and they are often spiced and made into a rich dish. In another species the flower-cups are of a deep red colour, and are so acid that they are made into tarts. This flower is in the East Indies called red sorrel, while in the West India islands the refreshing acid is used to make a drink resembling lemonade, which is much valued in the sugar colonies. From the bark of this and other species, the people of the Malabar coast manufacture, not only coarse cordage, but fine thread, while the acid leaves serve as a salad. Several species are cultivated both for food and for the manufacture of India matting, while the seeds of several are, in Hindostan, used as a cordial medicine, and in Arabia are mingled with the coffee-berry to heighten its flavour. Of one species were made

the whips with which the slaves were beaten in the West Indies, ere British justice had declared that all the subjects of the British empire were a free people. The leaves of some species yield a good blue dye.

The beautiful flower called China rose hibiscus *(hibiscus rosa Sinensis)* is a favourite flower in the hot-houses of this country, and is very common in China, where the plant grows to a high tree. Its flowers also grace the hedges at the Cape of Good Hope. It is one of the flowers often represented in Chinese paintings, on screens, and other articles of furniture. It is chiefly from its rich petals that the thick black substance is extracted, used instead of blacking, and which, from the purposes to which it is applied, has given to this flower, in its native land, the name of shoe flower. With this colouring matter the women also blacken their hair and eyebrows.

One of the very few plants of the hibiscus tribe which is quite hardy, is the common bladder ketmia *(hibiscus trionum)* or Venice mallow, sometimes called buff-coloured mallow, from its flowers, which are also striped with brown veins. It is a native of Italy and Austria, and was called by the old writers, "Good night at noon." If we are to believe Gerarde, however, still shorter than this name would imply, is its little hour of beauty, for he says, "it opens at eight in the morning, and closes again at nine." Many persons who have had it in their gardens have never seen it flower, for though it is sometimes open so late as three o'clock in the day, yet, unless the weather be clear and bright, many days will pass by, and it will remain folded up, waiting for the sunshine.

The common corn-flag *(gladiolus communis)* is too tall a flower to be overlooked, and it has a long spike of bells, of elegant shape and bright pink colour. Several varieties of this species are in cultivation, but some of the less general kinds are more brilliant in colour. The superb corn-flag *(gladiolus cardinalis)* has rich scarlet flowers, spotted with white, and the different orange-coloured species are very showy. Almost all our garden gladioli are natives of the Cape of Good Hope; but these flowers are not limited to that part of Africa, but are to be found scattered over the vast deserts of that country. Backhouse describes one which he saw in Caffraria, which had dense spikes of flowers, of a dingy hue, covered with minute purple spots; and other travellers have named them as blooming in all shades of yellow, pink, and brown colours, among the brilliant blossoms which enliven these arid lands. They have bulbous roots and long sword-shaped leaves; the latter suggested their botanic name from *gladius*, a sword.

The common bladder senna *(colutea arborescens)* is a pretty shrub, now covered with its clusters of butterfly-shaped yellow flowers; nor is it less ornamental in autumn, when its large, inflated pods stand thickly among its foliage. It is remarkable as growing and flowering on Mount Vesuvius, even on spots quite near to the crater. It is wild in many parts of France, and its leaves afford a grateful food to cattle. Both seeds and leaves are used medicinally. The smaller species, the oriental bladder senna *(colutea cruenta)*, is a much prettier shrub than this. Its flowers are of a reddish colour, and it is a native of the Levant.

The blue commelina *(commelina cœlestis)* as well as the other species of this flower, is a native of South America. And very brilliant is the tint of its blossoms, which are now open. Far less showy are the flowers of the basil, but the air is quite perfumed with the odours of this plant. The blossoms are shaped like those of the lavender, but are either purple or white. The common sweet basil *(ocymum basilicum)*, notwithstanding that its native soil is Persia or India, is a hardy annual. In Persia the basil is planted on graves, and is a favourite addition to the bouquet. Both in India and on the continent of Europe it is much used as a culinary aromatic plant. The Hindoos attach a superstitious veneration to some of the species; they use them in religious ceremonies; and one kind, known in Calcutta by the name of *toolsy*, is much cultivated there. The ancient Greeks held the strange superstition that this plant flourished best when planted amid railings and

angry words; and it seems strange, that as both Greeks and Romans so highly prized its fragrance, a malignant custom should have been connected with it. In former days many persons in our own land refused to plant it in their gardens, from the absurd notion that smelling it infected the brain, and that it produced scorpions. This idea was so prevalent, that Sir Thomas Brown thought it worthy of his notice, and attempted to refute it in his "Inquiry into Vulgar Errors," where he affirms that the Africans deemed it a remedy against the bite of a scorpion, and that if any one has eaten basil he is safe from danger, should a scorpion inflict a wound. And thus this learned writer displaces one error to advance another.

Although the stately hollyock *(althæa rosea)* is too large a flower for the smaller garden, yet on a large space of ground it well repays its culture. It is said to be a native of China, and is undoubtedly of Eastern origin. The French term it *rose d'outremer*, and it was long known in this country as the outlandish rose. It was well known to the ancients. Pliny describes it as a rose growing on stalks, like the mallow. This, as well as some other species of that plant, has been cultivated for its fibres, from which thread has been manufactured. Phillips states that, in the year 1821, about two hundred and eighty acres of land were planted with the common hollyock, with the view of using the fibres of the plant instead of those of hemp or flax, and converting them into thread. It was discovered, in the progress of the manufacture, that the plant yields a fine blue colour, little inferior to indigo.

The common hollyock is a biennial plant. It sometimes attains the height of ten feet. Its varieties are of many hues, from the bright clear white, to the rich dark purple which gardeners call black. It is a native, not only of the East, but of Siberia, and the southern countries of Europe; and the single yellow hollyock has been found wild in Africa.

That common, but handsome flower, the French willow *(epilobium angustifolium)*, often termed rose hay willow, is now very conspicuous. It is, by its height, well fitted for the shrubbery, but it is often seen, too, on the garden bed. So far from requiring any culture, it is a most troublesome flower in the garden; for the long pods which contain the seeds produce a great abundance, and each seed is crowned with a tuft of down, which facilitates its dispersion, so that the gardener finds considerable trouble in eradicating the numerous young shoots. This flower is occasionally found wild in Great Britain, and is a native of most parts of Europe, from Lapland to Italy. In no country, however, is it so luxuriant as in Lapland. Dr. Clarke says that it there attains a magnificence, compared with which it seems in other lands but a stunted plant, and adds, that among the many gay flowers which decked the river-sides of that land, its gaudy blossoms shone pre-eminently. Its high clusters of purple lilac flowers acquire a prodigious size among the rocks and stones. This traveller observes that it may be considered as the garland of Lapland, often attaining the greatest magnitude when every other sign of vegetation diminishes. The Lapps call it *almoke*, and among the inhabitants of Dalecarlia, the flower is familiarly termed heaven's grass.

The French name this flower *laurier de St. Antoine.* Its young shoots may be eaten, and the pith, bitter as it is in its fresh state, becomes, when dried, very sweet, and, by a certain process, is made into ale; while, by a farther process, the Kamschatctales derive vinegar from it. It is also used as fodder for cattle, and the goat is glad to come to the cliffs by the river to eat its foliage. The great quantity of down which exists in the pods has been mixed with fur or cotton, and made into stockings and other articles of wearing apparel. The little red Alpine willow herb is a pretty ornament for rock-work, and several species are among our wild flowers.

A very pretty Californian annual is now blooming. This is the shady nemophila *(nemophila phacelioides)*. Its flower is of brightest blue, and its name, taken from the Greek words, to love, and shade, indicate that this is to be found chiefly where trees and bushes cast their shadow.

Among the many odours of this season,

few are more pleasant than that of the pinks, which flowers are now in perfection. It was, perhaps, for its fragrance, still more than for its beauty, that the pink was called the divine flower. The carnation *(dianthus caryophyllus)* is thought to have had its origin in the wild clove pink of our land, and which also grows on the Alps of Switzerland. At the commencement of the eighteenth century, four hundred varieties of the carnation were enumerated, and their numbers are now increased. They are all sweet and beautiful flowers, and their leaves, which gardeners term grass, are, from their evergreen nature, ornamental to the bed in winter or early spring. The plant called tree pink *(dianthus arboreus)* is merely a kind of carnation, with a woody stem, and its pink flowers are found in the isles of Greece.

Many writers have considered the pink *(dianthus plumarius)* as merely a variety of the carnation; and as it does not appear to be found in a wild state, it is probably derived, if not from the carnation, yet from some of the smaller pinks, which grow wild in various countries. Our native pinks are few, and chiefly inconspicuous flowers, but a great variety bloom in the lands of southern Europe, and grow on the mountains of Germany and Switzerland at a great height. The kind of pink called laced pinks is that cultivated so much by florists, and their flowers should be about two inches and a half in diameter, with white petals, rose-coloured edges, and a dark purple ring in the centre. It does not appear that this tribe of flowers was known to the ancients, for no poet of Greece or Rome has sung of their perfume or beauty, and they are not mentioned by Pliny or any other naturalist of those distant ages.

The sweet-william *(dianthus barbatus)* is a clustered species of pink, and is called by the French, nosegay of pinks. It grows wild in Germany, and also on the hills of Normandy, but with much smaller flowers than it has in our gardens.

The China pink *(dianthus Chinensis)*, which seems neither exactly like a pink nor a sweet-william, is of a beautiful red colour, each blossom growing on a single stalk. It appears to have been introduced from China into our gardens about the middle of the last century.

The numerous species of groundsel have among them a few handsome flowers. One common and very ornamental species is now in bloom. The purple ragwort, or jacobæa *(senecio elegans)*, has sometimes double flowers of rich velvet surface, and beautiful dark hue. It is a native of the Cape of Good Hope. One species, the hawkweed-leaved groundsel (*senecio hieracifolius*) is a most troublesome weed in the newly cleared grounds of North America, and is called by the Canadians fireweed, because it springs up from the ashes of the clearing flame. Its white flowers bloom in August. A yellow, creeping-rooted kind, which grows wild in Britain (*senecio Saracenicus*), was used by the Saracens in the cure of wounds.

Some species of groundsel are found wild in every part of the world, but a great variety exists in South Africa. Backhouse describes the groundsels of the sandy deserts as of purple or lilac, resembling those of our gardens. Humboldt found this tribe very numerous in the upper regions of the Andes, just below the limits of eternal snows, "where the sun has very little power, where hurricanes are incessant, and not a tree is able to rear its head."

The greater number of those handsome annual border flowers, the fair-eye, or coreopsis, are now common. The dyer's coreopsis (*calliopsis bicolor*) is one of the most popular kinds. Its yellow flowers grow wild on the borders of the Missouri, and have been used in dying. The whorl-leaved coreopsis of North America (*calliopsis verticillata*), which is a tall plant, often cultivated in our shrubberies, is in bloom now, and for several months. The colour contained in its flowers is used for dying cloth red.

(To be continued.)

FIREPROOF DRESSES.—We have seen the very finest cambric so prepared (steeped in a dilute solution of chloride of zinc) held in the flame of a candle, and charred to dust, without the least flame; and we have been informed, that since Clara Webster, a dancer, was burned to death from her clothes catching fire on the stage, the muslin dresses of all the dancers at the best theatres are made fireproof.—*Medical Times.*

Obituary Notice.

DIED, in the House of Commons, on Wednesday, the 15th instant, that *intended* child of monopoly named "Hedlam's *Medical Registration Bill.*" Notwithstanding the brat was attended and supported by all the medical men of eminence throughout the kindom, whose skill and influence had been engaged, who had, in every part of the country, induced, as far as possible, all the honourable members of the Commons to support it, it has, nevertheless, expired in the arms of its friends; and although it has been hinted by Dr. Adam Clark and others, that there will be be a resurrection of even the lower animals, yet we have no hope of its resurrection, and we believe that many of its best friends are now cheerless on the subject of its resuscitation. It has gone, we hope, to its long home. Its half brother, Lord Elcho's Bill No. 3, had, on the 3rd instant, died without a struggle; and Lobelia has also been struck off Lord Granville's Poison Bill in the House of Lords, which shows that public opinion will be respected; and our friends have now nothing left them to do but persevere in the diffusion of the principles of Medical Botany, and thereby assist in relieving suffering humanity, and dispensing a knowledge that will elevate the condition of mankind. We shall, in the next number of the Journal, give an account of the progress of the Bills, and the causes that led to their defeat.

24, *Montague-place,*
Russell-square.

PRINTING IN CHINA.—According to the best authorities, the art of printing was known in China upwards of 900 years ago. In the time of Confucius, B.C. 500, books were formed of slips of bamboo; and about 150 years after Christ, paper was first made; A.D. 745, books were bound into leaves; A.D. 900, printing was in general use. The process of printing is simple. The materials consist of a graver, blocks of wood, and a brush, which the printers carry with them from place to place. Without wheel, or wedge, or screw, a printer will throw off more than 2,500 impressions in one day. The paper (thin) can be bought for one-fourth the price in China that it can in any other country. The works of Confucius, six volumes, 400 leaves octavo, can be bought for ninepence. For an historical novel, twenty volumes, 1,500 leaves, half-a-crown is the price among the Chinese.—*Montgomery Martin's China.*

NOTICES.

The Members and Friends of the AGENTS' SOCIETY are respectfully informed, that the Sixth Annual General Meeting of the Society will be held in the Town of Shrewsbury, on Tuesday, the 4th day of August next, 1857, when all the Friends are earnestly requested to attend the same, as business of great importance will be laid before the Meeting, and on their arrival in the above town they will proceed to Mr. John Lacey's, Wyle Cop.

On behalf of the Committee.
J. THOMAS, *General Secretary.*

Dr. COFFIN may be consulted gratis, as usual, every Saturday evening, from four to eight o'clock, at the Botanic Establishment, No. 24, Union-street, East, Spitalfields. *Patients not admitted to the waiting-room after eight o'clock.*

Dr. COFFIN may also be consulted at his residence, 24, Montague Place, Russell-square, daily *(Sundays excepted)*, from one to two o'clock (fee one guinea), on any day except Monday, on which day the fee will be five shillings only.

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POST-OFFICE ORDERS and all communications for goods, &c., to be addressed to William B. Ford, 134, High Holborn.

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The real name and address of the writer of a letter must be given in confidence.

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AND

MEDICAL REFORMER.

"Human experience, which is constantly contradicting theory, is the great test of truth."—Dr. Johnson.

No. 241—Vol. VIII. SATURDAY, AUGUST 8, 1857. Price 1d.

DIARRHŒA AND ITS CAUSES.

At this season of the year, the attacks of diarrhœa, in their severest forms, are not usually very common; but in the present year, they have been most alarming in some cases and fatal in others. To those who have been accustomed to ascribe the complaint to the free use of stone-fruit, such as plums, apricots, nectarines, &c., the prevalence of suffering of this peculiar character is quite unaccountable. We are willing to admit that fruit is very often an accessary, but seldom, if ever, a primary and sole cause of the disease. If the body be in a healthy condition, the atmosphere pure, and the habits temperate, fruit of good quality, and perfectly ripe, will not damage, but rather promote health. Of course, it is quite possible, that a person may take fruit to excess, and all excesses of solids or fluids will prove injurious. Moderation in all things which are good in themselves, and entire abstinence from all things which are bad, are maxims of safety.

We believe that choleraic diseases are often occasioned by impurities in the atmosphere, and that these are the greatest and most injurious where the drainage is defective, and when the temperature is intensely high. The great heat causes the noxious vapours to exhale more profusely than when the temperature is lower. The human frame is more susceptible of any malignant influence while overheated, than when there is a cool temperature. We are glad to find that the *Times* has very properly called the attention of the Parliament to the defective sewerage of the metropolis. We give the following extract:—

What has become of the great sewage question? Time was when the town was frightened out of its wits by a discussion of all the evils which might, and certainly will, one day arise from the presence of a vast stream of refluent pollution in the very centre of the metropolis. The cholera had been among us in those days, and every Londoner, whether permanent inhabitant or temporary resident, was alarmed for his own safety and for the safety of his household, of his friends, and, if a man of large sympathies, of his acquaintances even, and of the public in general. The cholera is gone, and, true to our human nature, we are forgetful of past griefs, and live on from day to day in indifference. In the year 1849 the grim visitor made its presence felt among us with terrible effect. In 1854, again, streets in the politest quarter of the town were blocked up as unfit for access. A few yards to the east of Regent-street a man who did not wish to risk his life, must have chosen his path with care. The "No thoroughfare" of 1854 was equivalent to the "Lord have mercy on us!" of 1666. All this is now forgotten; we are more apt at calculations and economics than at reasonable precautions. "Sewage" is a cuckoo's note, of which the ratepayer's ear is very weary; the business is put by till the fool's convenient season—that is, until it is too late. Now, if we had in our collective capacity of fellow-townsmen

the same degree of prudence which the great majority of us exercise in our private affairs we should take advantage of this *tempus pœnitentiæ* to set our Babylon in order. We have had broad hints enough from the cholera, and when the pestilence comes upon us again it should not find us unprepared. Most houses are insured against fire; how is it, then, that we do not insure ourselves during the period of respite against a peril which is fully equal to either of these? The question of the London Sewage and of the purification of the Thames still remains unsolved; nor does there appear to be much prospect of wiser counsels. To-day we would call attention to a very minute section of this great work, which may, possibly, in time and with importunity be carried out. We can scarcely hope, until the cholera shall again come to our aid, to be heard, so far as the Thames is concerned; possibly we may gain attention when we speak of the Serpentine.

Sir Benjamin Hall has lately been doing a very good work in St. James's Park, to the satisfaction of the public and the displeasure of Lord Malmesbury. It is a pleasure now to walk in St. James's gardens, and to feel that there is no exhalation from fetid water rising up around one's path, and that the children who are sent there to play can do so without peril to their health. Experience, of course, must be the test of the solidity of the work, but if it maintains its promise the Londoners who inhabit that quarter of the town have every reason to bless the name of Sir Benjamin Hall. A better job was never done. Now that it is completed, and Lord Malmesbury has had his fling at it, we would invite attention to the condition of that which might a year back have been described as the sister pollution of the Serpentine. It is high time that this nuisance should be taken in hand. The Pond in the Green Park has been filled up, the Lake in St. James's Park has been effectually purified. By a natural sequence we arrive at Hyde Park and the Serpentine. We will speak presently of the reports of scientific men upon the subject, but it is one on which we require no considerable aids from science in order to arrive at a just conclusion. Let any one who would make up his mind on the subject saunter along the southern bank of this sheet of liquid dirt about 8 o'clock, p.m., when hundreds of bathers are about. The only parallels we could name would be the Pool between London-bridge and the Tunnel, and the harbour at Marseilles. If you are in search of filth and dirt, *circumspice*—there they are. Nor is this result to be wondered at when the circumstances of the case are duly weighed. It appears that the sewage of a large district is now poured into the Serpentine, as well as the water impregnated with the decomposition of thousands of human corpses. It is curious enough to reflect that the beauty and fashion of London should have chosen such a spot as the locality of their favourite promenade. Lounging in their carriages, or careering along on horseback, they pass to and fro by the side of that green pool, seething in the hot July sun, which holds in solution so many of their fellow-creatures who but a few years back were even such as they are now—millinery perhaps excepted. There is a sewer, we say, which empties itself into the Serpentine, after having drained a considerable portion of the North-western portion of the metropolis and of the suburban districts of the same region. The subject is not a savoury one, but, as it is important that the public should be rightly informed of what the Serpentine really is, it is perhaps as well to give particulars. There is a sewer which runs from Frognal, near Hampstead; there is another which runs from Kensal New Town. These two sewers unite in one channel a little to the North of the Harrow-road. "They pass through a sewer of 10 feet 6 inches by 8 feet 6 inches from Glocester-terrace to the head of the Serpentine, near the Bayswater-road. At this point the sewer decreases in size from 8 feet 6 inches by 10 feet 6 inches to an opening of 6 feet by 4 feet; and when the sewage in this diminished aperture rises 4 feet above the bottom of the drain, the overflow is discharged into the Serpentine, thus causing the pollution of the water." Nor is this all; in addition to the many thousands of houses which have their discharge into this sewer, or union of sewers, the great cemetery at Kensal-Green pours its drainage into it.

There is, besides, a new cemetery to be opened at Kilburn, where the soil is of a very retentive character. This also will have its drainage into the sewer already named. All this will go to add tone and quality to the perfumes which the Londoners must needs inhale from the Ornamental Water in Kensington-gardens, and from the Serpentine.

These being the *data*, we now come to the results, independently of the conclusions at which ordinary men may arrive by a bare use of their senses. Dr. Hassall was called upon to report on the condition of the water in the Serpentine, and he found it to be highly impure, "containing much organic matter, vegetable and animal—dead, living, and in solution." The green hue of the water is produced by the presence, in great quantities, of a vegetable production to which scientific men have given the name of *aphanizomenon flosaquæ*, and it is mentioned in the report that it is a vegetable production of the same class which gives the red tinge to the Red Sea. Ghastly creatures of all kinds seem to hold their "at homes" in this filthy pool; among others, mention is made of a worm or annelid, named *spirostomum ambiguum*, which is never found unless the water is highly impure. It abounds in the Serpentine. The mud at the bottom is putrid and black—in fact, this sheet of liquid pollution is in as bad a condition as it can well be. This being so, Sir Benjamin Hall proposes to execute a series of works of the same kind as those which he has carried to so successful an issue in St. James's Park. The chief *desiderata* would of course be to divert the sewage, to expose the mud for a certain time to the purifying influence of the atmosphere, to cover it in with concrete, and then to secure a perennial and sufficient supply of pure, running water. The experiment of carting away the mud in any considerable quantity would be attended with too much risk, and would, in all probability, breed a pestilence in the neighbourhood. It is, then, a question of levelling, of filling up holes—of bringing the bottom, in short, to an even and uniform surface, on which the concrete can be laid, as it has been in St. James's Park. The proposer of this excellent project and his advisers have naturally decided that the depth shall be so regulated that from the moment the improvements are carried out there shall be an end of the functions of the Royal Humane Society with regard both to skaters and swimmers on and in the Serpentine and the Kensington-gardens sheet of water. We heartily recommend the subject to the favourable consideration of the public. From the manner in which the less important improvements have been received by everybody except Lord Malmesbury, Sir Benjamin Hall may augur favourably of the results which will follow from an extension of his plans.

LIGHT IN RELATION TO LIFE.

(Concluded from page 16.)

All happiness, derived through the senses of sight and sound, is dependent on the vibrations of light and air, which are so attuned by the touch of Deity as to suit the diversified powers of perception possessed by the beings upon earth, so that not a ray of light shall fall upon a cloud or on a flower, nor a sound, nor, indeed, a feeling, nor a scent, be elicited, but it shall indicate the hand of Omnipotence at work to regulate vibrations in keeping with the senses of his innumerable creatures. How unutterably delicate the might that thus harmonises existence!

These facts are referred to, merely to show how stupendous are those refinements and subtileties of matter with which the soul is associated, and to indicate how inconceivably diminutive are the causes of delight and of disorder. How unwise, then, is our wonder at not being able to discover more of our spiritual nature, since even its material vehicle and instruments are so incomprehensible! Surely, all the truths which reach our reason are intended to convince us that our being is constantly the care of Almighty wisdom and benevolence; and as surely, therefore, is it our proper business to observe the laws under which we live, and to obey them in confiding and adoring submissiveness to the love that has imposed them.

Many interesting facts might be adduced to demonstrate the importance of

our considering the direct operation of colour, merely as such, upon the mental faculties. No doubt a large measure of our pleasure from colour is due to association and the sense of the agreeable, for it seems quite natural to connect colour with sentiment: hence every thoughtful mind can appreciate the poet's truthfulness in speaking of the "green and yellow melancholy" and of "celestial rosy red," as "love's proper hue." Irrespective, however, of the influence of what we are accustomed to call the cheerfulness of particular colours, perhaps simply because a degree of brightness is always pleasing to the healthy brain, there is reason to believe that colours will be agreeable or disagreeable, not only according to the general state of the affections and of intellectual idiosyncracy, but also according to their power of modifying the magnetism of the body. It has been demonstrated that different rays have different chemical and magnetic effects, and therefore we may fairly infer that their respective operations on the nervous system must also differ. It is a pity that their influence on morbid manifestations of the mind has not been more studied, since several circumstances favour the conclusion that the mental condition is greatly modified by colour: thus we find that red often violently excited those morbid beings who were subject to the dancing mania, and that particular colours are apt to arouse the indignation of all maniacs. We observe, in this respect, a remarkable coincidence between mad persons and the state of infuriated animals, which are also rendered more outrageous by glaring colours, especially by red. The taste for various hues was not less remarkable among the dancing devotees of St. Vitus than was their mad delight in music; but the excitable Italians, in their tarantali, experienced very different sensations from the phlegmatic Germans in their epidemic dance. The latter detested red; the former delighted in it. Their likings varied according to temperament and nervous condition. Some preferred yellow, others black, while others again were so enraptured by green or blue as to throw themselves into the sea, or into rivers, in the delirious ecstasy of their enjoyment. Indeed, eye-witnesses describe this chromatic rage as altogether beyond their powers of expression. The patients rushed towards their favourite colour, devoured it with eager looks, kissed it, caressed it in every possible way, embraced the coloured article with the intense ardour of lovers, while the tears streamed from their eyes, and rapturous language flowed from their lips: in short, to use the words of Hecker, "they were completely overwhelmed by the inebriating impression on their senses."

There can be little doubt that in these cases the imponderable principle which is connected with sensibility, and which certainly has a marked relation to magnetism, was so altered, either by the mere action of the mind, or by some peculiar distemperament, as to be disturbed in an extraordinary manner by such things as in general scarcely excite the sensorium. Probably a state of nervous system, not dissimilar, although more manageable, may obtain in those individuals who are remarkable for odd fancies as regards colour. Thus, Dr. Johnson was unhappy in his studies except in a room with yellow curtains and walls, while the author of the "Night Thoughts" delighted in crimson, and Goldsmith luxuriated in plum-color.

The experiments of Baron von Reichenbach throw a new light on this subject, since it appears from these, that the different colours exert decidedly different effects on the nervous state of a susceptible person. A spectrum was thrown on a wall, and the subject of experiment placed in a dark room, holding a copper wire, fifteen feet long, in her hand, the other end of which was moved from tint to tint along the spectrum without her knowing what was done. Many experiments, which gave uniform results, showed that green and yellow especially excited "the delightful feeling of refreshing coolness." The red produced a sense of heat, the violet ray, and a point beyond it, caused a peculiarly disagreeable sensation. We cannot but be struck with the circumstance that the maximum of light, the maximum of heat, and the maximum of magnetic power in the spectrum, have each their peculiar action in the excitable nervous system. We know that the effect of daylight on the mind vastly differs from that of any artificial light,

probably, from their respective constitutions as respects the proportions of colour. The light of a common lamp is just the reverse of sunlight, the former being, red, eight; yellow, five; blue, three; and the latter, red, five; yellow, three; blue, eight. I know a sensitive person in whom the light of a lamp produces pain in the back of the head, although the brightest sunshine excites no such effect. The remarkable influence of moonlight may, probably, be traced to some peculiarity in its composition. Its magnetic effects certainly differ much from those of direct sunlight, and hence, probably, it promotes coldness and putrescence, and, of course, it may also excite peculiar changes in the nervous power, thus accounting for its well-known influence on lunatics and on nervous individuals.

The phosphorescence so frequently seen at sea has also a strange effect on the nerves. A competent observer, who had extensive opportunities of witnessing its sublime and beautiful appearance, states that he could read by this light, but that the attempt almost always produced headache and sickness.

These facts indicate the propriety of considering the influence of light on the body in health and disease, for undoubtedly much remains to be discovered concerning its agency in connexion with life and nervation, which will aid society in the pursuit of wisdom and happiness.

We possess the power of modifying light as regards the colour diffused in our apartments, by an appropriately coloured medium through which it may pass; and all who can should consider the subject, not only in relation to the preservation of sight, but also to tranquillity of mind; for both morals and intellect are determined in a great measure by the relation of our nerves to light, and the character of our enjoyments in regard to colour. This observation may appear to some readers as rather too refined; but its meaning will be brought home to their understandings when they reflect on the influence of light on physical development, and in modifying disease. A tadpole confined in darkness would never become a frog, and an infant, being deprived of heaven's free light, will only grow into a shapeless idiot, instead of a beauteous and reasonable human being.

I believe there is, in all places, a marked difference in the healthiness of houses, according to their aspect with regard to the sun, and that those are decidedly the healthiest, *cæteris paribus*, in which all the rooms are, during some part of the day, fully exposed to the direct light. It is a well known fact that epidemics frequently attack the inhabitants of the shady side of a street, and totally exempt those of the other side; and even in endemics, such as ague, the morbid influence is often thus partial in its action. Sunshine is also essential to the perfection of vegetation, and the water that lies in darkness is hard, and comparatively unfit for drinking, while the stream that bares its bosom to the day, deposits its mineral ingredients, and becomes the most suitable solvent of our food. In small-pox and other eruptive diseases, the tendency to form pustules is diminished by the patients being kept in darkness.

But the influence of light on the nervous system cannot be more forcibly exhibited than in its effects on that terrific disease, hydrophobia. While light is excluded, the patient can sometimes swallow with comparative facility; and as long as no bright object is presented, all the spasmodic phenomena of the malady are more easily controlled. It is curious that bright objects also frequently throw the votaries of St. Vitus into *convulsions*. There must exist, in all such disorders, an exalted irritability, a degree of which is, perhaps, also experienced by the inordinate student when, like Milton, he exclaims—

"Hide me from day's garish eye."

This intolerance of light seems generally to arise from irritation of the brain, induced by excessive use of the eye; more especially from any such employment as demands a nice discrimination of sight, and at the same time a powerful effort of mind. It is important, therefore, for all persons so engaged to take due precautions to avoid cerebral excitement, and by all means to relieve the eye when fatigued. Rest is the natural remedy. Those who pore over books should either have the power of qualifying the degree and colour of the light admitted to their study, or else use tinted glasses, taking

care, however, not constantly to wear them of the same colour. Gray, blue and green are the most suitable shades, but of course the choice should depend on circumstances, such as the effect on the sight, and the colour of the objects chiefly before the eye. Whatever is disagreeable in this respect is always more or less injurious.

VACCINATION.

To the Editor of the Brighton Examiner.

Sir,—Many years ago, a leading barrister advised a junior, when he had a bad cause, to abuse the opposing counsel. It is evident that the ex-"Visiting Vaccinator," Mr. William Henry Sandham, whatever be his qualifications as a physician, has attained, at least, the obsolete lawyer-like qualification of abusing an opponent. Indeed, so perfect is he in this respect, that any person of ordinary intelligence and candour, who has read in your columns the extract from the *Lancet*, my letter, and Mr. Sandham's replication, cannot but admit that that gentleman has disentitled himself to a reply. Consequently, I should abstain from noticing his strange exhibition of passion and prejudice, but that I have a duty to perform, from which nothing can deter me—least of all, abuse, to which I am now well inured. That high-born, if not well-bred, senator, the Right Hon. W. F. Cowper, ex-President of the Board of Health, President of the Education Committee of the Privy Council, availing himself of his privilege to say what he pleases in a place where I may not reply, may do me the honour to call me a "lunatic;" Mr. Sandham, obsequiously copying so illustrious an example, may pay his court to the dispenser of the loaves and fishes, by reiterating the compliment in more classic language, and pronounce me "demented;" and more fiery, if not more refined, Jennerites may blandly "wish that the author and his works were burned together"—all can but provoke a smile.

Mr. Sandham undertakes to prove that his "frightful intensity" is a "*bonâ fide* fact," and seeks to establish his point by cuckoo repetitions of the phrase. He does not condescend to acquaint your readers with the average mortality from small-pox amongst the vaccinated and the unvaccinated respectively, and the total mortality from small-pox and from all causes, in Cork, in 1856; the relative proportions of the vaccinated and unvaccinated there in that year; and the average annual mortality in that city; although those items are necessary elements to a full investigation of his statement. Again, he omits dates. He likewise overlooks one other point of detail—he forgets to state the amount of fees he earned in his daily perambulations, or how far they stimulated his zeal before he could have "been so convinced of the beneficial and preservative influence of vaccination from his experience during the late epidemic." His emoluments may not have equalled those of Mr. Simon, who has been rewarded with £1,500 for changing the opinions he held in 1853, and writing a blue book advocating compulsory vaccination; but they must have amounted to a pretty sum.

Mr. Sandham is angry with me because, in my anxiety to do him all possible honour, I allowed myself to be misled into giving him credit for greater activity than he manifested. Why should he be offended at a mistake imputing to him that he performed 155 vaccinations daily instead of 69? and that, on the whole, his operations amounted to 3,249, instead of the actual number, 2,474? Those errors told in his favour. Why, then should he recklessly accuse me of "distorting the extract from the *Lancet?*" He knows that I have not done so, and he allows his knowledge to escape in a parenthesis, in which he admits that those errors are due to the "*Lancet*," which "erroneously quoted three weeks" instead of six. Mr. Standham's corrections strengthen my case: if 3,249 vaccinations could exercise a very small influence on a population like that of Cork, it follows that 2,474 vaccinations could exercise a lesser influence; if it is not surprising that vaccination should disappear in three weeks after reaching its acme, it is not surprising that it should disappear in six. But Mr. Sandham's corrections amount to very litttle;

as far as respects one portion of Cork, "the flat," he now states that small-pox did disappear in three weeks, and it is not yet clear that it did not follow a similar course in the other portions of the city. It is evident, from Mr. Sandham's own statement—if, indeed, you are not hoaxed by some person simulating him, with the intent to make him appear ridiculous—that the small-pox had reached its acme, before he chivalrously sallied forth against it, armed with lymph and lancet. Instead of preceding, in the hope of stopping the advance of the enemy, he followed in its track, and thus pursuing it, he found it in "every lane and alley of the city and suburbs"—that is, in all the dirtiest localities, where everybody either already had it, or had been exposed to its contagion.

But, although Mr. Sandham is angry at the statement, that, while hawking about, pedler-like, his nostrum, he supplied 3,429, instead of 2,474 dupes, he seems to have some idea that, after all, it would rather strengthen his case, if he could make it appear that a much larger number had been operated upon, and accordingly he states that, in addition to himself, "there were eight dispensing physicians, besides numbers of private practitioners, vaccinating in the city and suburbs." He affords no data for even a conjecture at the number of operations perpetrated by private practitioners; but we might hazard a guess at the number perpetrated by the "eight dispensing physicians," for he states that they "could only vaccinate at the rate of one a day." It is not clear if it took the whole eight to perform one operation daily, or if each, in Irish parlance, "killed a Hessian for himself," but credit may be freely given for the greater number. However, as Mr. Sandham forbears to estimate it, I shall copy his prudent reserve, lest I should only provoke another explosion of his wrath.

Mr. Sandham naturally considers the statistics quoted by me as "most unsatisfactory." Is that my fault? I did not make them. If he can contest the figures in my first table, which seem to give him peculiar uneasiness, let him send his corrections to the Registrar-General. If, in Mr. Sandham's opinion, those figures "go to prove that small-pox must be a positive blessing," and, if he dislike the deduction, how can I help him? Let him blame what or whom he will, but let him excuse me if I decline to express either assent or dissent to his deduction, it not being my wont to jump to hasty conclusions. Nevertheless, I may be allowed to ask, Why, if one disease be a blessing, another disease might not also be a blessing?

Mr. Sandham is free to sneer at Dr. Geo. Gregory's theory of "vicarious mortality;" as free as Mr. Simon, in his recent defence of vaccination, forgetting Jenner's contempt of Dr. Watt, is to exult over that theory as "what Jenner would have most wished to hear;" it being, it would seem, in the estimation of vaccinators, to the credit of vaccination, that persons killed by measles, &c., cannot again die of small-pox!

Mr. Sandham invites my opinion of re-vaccination. He might have surmised it. Individual examples of the evil results of re-vaccination could be adduced, but, as they might not be acceptable to Mr. Sandham, I beg to refer him, for more extensive proof, to the second table of my former letter, where he may see that the annual mortality, in vaccinated and re-vaccinated Prussia, is 1 in 38; it being, in comparatively un-vaccinated England, 1 in 45. But does it not strike Mr. Sandham that re-vaccination is a practical condemnation of the nostrum of Jenner, who obtained £30,000 from Parliament, on his representation that it "is attended with the singularly beneficial effect of rendering *through life* the persons so inoculated perfectly secure from the infection of small-pox?"—*Jenner's Petition to Parliament.*

Mr. Sandham betrays some sense when he says—"I ask Mr. Gibbs, Is the annual mortality less amongst the non-vaccinated portion of such a population?" That, in other words and a restricted sense, is a question which I proponnded, in 1855, to the Board of Health, in the letter which the House of Commons did me the honour to print last year, and it is the question which the author of the Blue Book, alluded to above, admits cannot "be answered exhaustively" by him. Having

waited patiently for the solution of that question, I am content to wait, and must decline to undertake it myself. I remit it to them who are liberally paid to do it; who have access to public offices and official records; who can command an army of subalterns, and can draw almost *ad libitum* upon the public purse. But if Mr. Sandham is not content to wait the convenience or convictions of officials, he may consult with advantage the works of Messrs. Carnot, de Lisle, Bayard, Ancelon, Nittinger, de Terze, de Feulins, and others, wherein he may find proof of the evil influence of vaccination upon the public health of foreign nations, and, by parity, he may arrive at an approximate estimate of the evils of vaccination, as practised on a more limited scale at home. Meanwhile, I thankfully accept Mr Sandham's kindly implied permission to ride my hobby. But why will not he and his brother nostrum-venders allow me to ride in peace? Not to be outdone in courtesy, I would allow Mr. Sandham liberty to ride his; protesting, however, that in default of his blandishments, neither scolding nor threatening shall induce me to mount behind him. Honey is generally esteemed a good thing, but may become distasteful if rudely forced down the throat: thus given, even if given *gratis*, it would be dear at the price. Having succeeded by argument, in his house-to-house visitation, Mr. Sandham would now have recourse to compulsion. To what end? Has he not already slain the ravager, and saved his "beautiful city?" Does he not reflect that, if coercion be substituted for argument, he never again can have a similar opportunity to display his eloquence and disinterested energy—never more reap such laurels—never more win a similar right to sound his own glorification? May these, where graver considerations might in vain be suggested, operate to moderate his rash desires.

Permit me, sir, to seize this opportunity to thank you for your kindness, and believe me to be, your obedient servant,

JOHN GIBBS.

St. Leonard's-on-Sea, July 16, 1857.

To the Editor of the Brighton Examiner.

Sir,—Your Journal of the 14th instant contains a letter in support of the vaccination delusion, which reflects greatly on the hasty conclusions of its advocate, showing the contraction of mind from a source whence the public expect something better; and the sarcasm employed to create contempt instead of inquiry, creates doubt as to the valid position of the writer. It is certain that Mr. Gibbs is not prompted by any sinister motives; and however strongly Mr. Sandham may desire to insinuate a lack of elegance of expression, or care in compilation of facts—had these been wanting, his writings would not have been commended by thirty-one of our ablest public writers, declaring him to be not only a gentleman, but a scholar; and, in confirmation of the same, had the Government no appreciation of the force of his facts, it would not have ordered one of his works on this subject to be reprinted and circulated in the House.

I know Mr. Gibbs personally, and as a private gentleman and proved philanthropist, devoting his time and property to check the growing evil of medical monopoly. All attempts from interested parties to press the Legislature to acts of violence on the freedom of the subject, will, I doubt not, continue to call into action the mind of Mr. Gibbs and others, who cannot yield to the fancied authority of those who arrogate to themselves more than their due.

I would not be misled by any, if I knew it, though the error may be believed by all the professional and unprofessional of the land; I would rather be guided by experience, observation, and reason. The first of these proves vaccination worse than useless, inasmuch as it is not uncommon for patients vaccinated to have the small-pox while the vaccine pustule is on the arm, and the small-pox matter and vaccine become confluent, both running together. A case, named to me but yesterday, of a child, three times vaccinated, had small-pox three times; such experience must convince all who are not blinded by ignorance, prejudice, or fee, that it is a delusion; and in many cases it is worse for the patient than if no vaccine matter had been inserted. Secondly, observation, and the private and public statistics which are not one-sided, throw the snbject into the shade. I need

not quote those collected by Mr. G., of St. Leonard's, the almost universal statement of my patients (whose average is about 100 per week in Brighton), allows ample scope for observation to conclude that it is not merely a delusion, but a curse to the human family. The compound disease which make their appearance, the parents of children declaring how healthy and clear the skin was prior to vaccination, impress the mind with the direct cause; and, by tracing, it is too often proved to be disease taken from the tainted, scrofulous, scurvy, itchy, leprous, and spreading syphilitic and other sores, and internal diseases from human bodies from whom the matter is taken.

Thirdly, reason unfettered must look at it with astonishment, and turn away with disgust at the gross imposition so blandly introduced by gentlemen whose scientific researches did at first scout it. The blind blundering with inoculation, so with this, they inoculated all with small-pox to lessen it, and allowed all the old wives to join in spreading that plague till they had murdered by their scientific ignorance enough to create general alarm, then none were to be inoculated under penalty. Then followed the cruel, irrational, immoral, and diabolical innovation of stabbing all the infants, and doing them grievous bodily harm, polluting with corrupt, poisonous matter (called pure lymph) from the sores of horses, cows, camels, dogs, and pigs. We smile at the tattooing of the barbarian, and forget the carved faces of civilised society, under the delusion of preventing first by inoculating, then by vaccinating, corrupting the fluids and polluting the whole mass of mankind, preparing the systems of men to fall by any endemic or epidemic, cholera or any other plague, the cause of which is as yet unexplained, except by this transfer of morbid matter from brute. and human sores. 'Tis more than ridiculous, 'tis unreasonable to say that any corrupt matter from the pimples or sores of any part of animated nature, can but contaminate and injure the human form divine: call it pure lymph, or any other stupid name, *'tis corruption*, and the refuse of animal matter designed to be thrown off; and you may as well call bitter sweet; evil, good; wrong, right; night, day; sickness, health; death, life; or any other flat contradiction of terms, as to call diseased matter, passing through a thousand corrupt carcasses, "*pure lymph or good matter.*"

What would the wild Indian think of the barbarity of any man entering his wigwam, with scab and lance, and stab in the arm his dear little boy, and making ill the innocent who was before well, simply because he and a few other thoughtless persons believed it a prevention to some disease which may never attack the child? Is there no stronger inducement than this foolish faith, unsupported by one scientific or philosophical fact? Oh, yes! £54,727 for it in 1855 alone is a weighty argument in its favour, especially with a view of its augmentation. How great is the apprehension of the anatomist, lest corrupt matter should enter the punctured cuticle! and we need not go out of Brighton to see the fatal effect of matter so absorbed by the lips taken from the knife while dissecting.

What then may the amount of evil be, when public vaccinators are appointed as men at a trade, by law supported, and by taxes paid to slay the helpless? All this while I have not forgotten one great question oft repeated, and to the unreflecting 'tis a sweeping one too; it is this, "If vaccination does not prevent small-pox, how is it that we have less of it now than formerly?" This question from the Dr. or some Mr. Would-be-wise, silences the gaping throng, though as empty as a bauble; and rendered more generally fraught with evil from the lips of others who are not ignorant of things generally, but display a fearful amount of it on this subject; such persons would do well to peruse carefully, "Compulsory Vaccination in its Scientific, Religious and Political Aspect, by John Gibbs, Esq."

Do fevers and ague rage on the healthy hill as in the swampy flat? Why is cholera less frequent since it first depopulated our towns? Have they not caused laws to be passed to remove decaying refuse from the dwellings of the poor, and drain the undrained and ill-built and thickly populated localities? Did any of our colleges or hospitals give us a sure remedy for the latter? Not one; and the few individuals who

have approached nearest to its specific have been too little regarded. Hence the useless recommendation to the Board of Health, of hot baths, by Dr. T. H. Starr, of Brighton, and the shameful refusal of the gift of anti-cholera powder by the London Botanic Practitioners, while cholera was slaying more than the sword in the late Russian war. And how did that abate? By sanitary measures alone; and so has small-pox. The localities, generally, prove this a truth. Vaccination then has been no preventive of small-pox, but sanitary measures have done for it what it does for cholera—rid us of it: hence we have less of both.

I am, your obedient servant,
T. W. Stowell, M.B.

3 *a, Church-street, July* 17, 1857.

NEGLECT OF BRAIN DISEASE.

The poor overwrought brain meets with but little attention and consideration when in a state of incipient disorder. The faintest scintillation of mischief progressing in the lungs, heart, liver, and stomach, immediately awakens alarm, and medical advice and treatment are eagerly sought; but serious, well-marked symptoms of brain disorder are often entirely overlooked and neglected; such affections frequently being permitted to exist for months without causing the faintest shadow of uneasiness or apprehension in the mind of the patient or his friends. Morbid alterations of temper—depression of spirits, amounting sometimes to melancholia, headache, severe giddiness, inaptitude for business, loss of memory, confusion of mind, defective power of mental concentration, the feeling of brain lassitude and fatigue, excessive *ennui*, a longing for death, a want of interest in pursuits that formerly were a source of gratification and pleasure, restlessness by day, and sleeplessness by night, all obvious indications of an unhealthy state of the functions of the brain and nervous system, rarely, if ever, attract attention until the unhappy invalid, becoming unequivocally deranged, commits an overt act of insanity. Then the exclamation is, "Poor fellow, his mind has been affected for months!" and no one expresses any surprise that he should, in such a state of mental disorder, have hung himself or cut his throat. It is difficult to induce the public to take a common-sense and right view of this important subject; for, if the saving of life is the object, it is to the public mind we must plainly address ourselves. If a person in a previous state of mental and bodily health is conscious that abnormal changes are taking place in the mind—that trifles worry and irritate — that the brain is evidently unfit for work —that the spirits are flagging — that all the evils of life are magnified; if he is disposed to be fanciful—imagining things to exist that have no existence apart from himself—believing that kind friends ill-use and slight him — if symptoms like these, or analogous to these, are associated with headache, derangement of the stomach and liver, and want of continuous sleep, the patient may assure himself that the state of the brain is abnormal, and requires careful consideration and treatment.—*Journal of Psychological Medicine.*

An Alleged Miracle turned to Practical Account.—Dr Duff states that a few years ago, a company of ascetics having lighted their sticks of dried cowdung where veins of coal were outcropping, the black stone caught fire, at which they were greatly astonished, and circulated the report of a new miracle, which was the special manifestation of their god of fire, who had caused the very stones to burn. Multitudes flocked to the spot, a new shrine was erected, and worship paid to the god of fire. Some Europeans hearing of it, went to the place, and soon ascertained the nature of the miracle, which they turned to profitable account, by digging and working a mine that has since supplied the Ganges steamers in Upper India with coal.

The Brain in Childhood.—It is a fact well attested by experience, that the memory may be seriously injured by pressing upon it too hardly and continuously in early life. Whatever theory we hold as to this great function of our nature, it is certain that its powers are only gradually developed; and that if forced into premature exercise, they are impaired by the effort. This is a maxim, indeed, of general import, applying to the condition and culture of every faculty of body and mind; but singularly to the one we are now considering, which forms in one sense the foundation of intellectual life. A regulated exercise, short of fatigue, is improving to it, but we are bound to refrain from goading it by constant and laborious efforts in early life, and before the instrument is strengthened to its work, or it decays under our hands.—*Sir H. Holland.*

STATISTICS OF MEDICAL BOTANY.—REGISTER SHEET.

(Continued from page 366, vol. vii.)

Name and Residence.	*Age.*	*Ailments.*	*Previous Medical Attendants.*	*When came under Bot. Treat.*	*Present state of Health.*
Mr. Roper, Little Waldingfield, Suffolk.	64	Ulcerated bowels.	Under medical treatment nine months.	September, 1855.	

GENERAL REMARKS.—This was a very distressing case, and all who knew him said he would never recover; but under botanical treatment he was well in four weeks, and has continued so ever since.

Robert Stiff, Groton, Suffolk.	50	Heart disease.	The surgeon of his club, and physicians of the infirmary.	July, 1853.	

GENERAL REMARKS.—This very dangerous case had been treated by the faculty for two years, but still continued the same: under botanical treatment recovered in less than twelve months, and has been able to continue his work for eighteen months as a labouring man, and still well.

Samuel Carls, Boxford, Suffolk.	9	Scrofula.	Under medical treatment four months.	April 26, 1856.	

GENERAL REMARKS.—This was a most distressing case—had been under one of the faculty above four months: the child's face was a complete mass of scrofulous sores, and had been blind for six weeks. After taking antiscorbutics, washing the face with liniment, and dressing the sores and eyes with dock ointment, in ten days he could see, and in nine weeks quite well.

Mr. ———, holding office in a borough town in Suffolk.	48	Water in the head.	Under medical treatment three years.	January 8, 1857.	Quite well.

GENERAL REMARKS.—This case was of a distressing nature. This gentleman was under the faculty three years: he was taken first with bleeding at the nose profusely, afterwards it turned to water, which ran from his nose as clear as gin, sometimes for eight hours in the day. He was very much reduced; he wasted forty-two pounds, and became so nervous as to be obliged to leave his situation. He went to London for advice, but received no benefit; he came to me and asked me whether I thought I could do him any good. I told him I could cure him if he would attend to what I requested. He did so, and in ten weeks I made a perfect cure of him. I treated him, according to Dr. COFFIN'S "Guide to Health," for water in the head.

Hoping you will insert these cases in your next Journal,

I remain, dear Sir, yours most respectfully,

JOSEPH MARSH,

Boxford, Suffolk.

TURKISH MEDICAL PRACTICE.

A PERSON once exceedingly ill of typhus fever, called in one of the emirs, men who professed medicine, who, although he considered the case quite hopeless, prescribed for his patient, and took his leave. The next day in passing by, he inquired of a servant at the door if his master was not dead.

"Dead? No. He is much better."

Whereupon the doctor proceeded up stairs to obtain the solution of this miracle.

"Why," said the convalescent, "I was consumed with thirst, and I drank a pailful of the juice of pickled cabbage."

"Wonderful!" quoth the doctor, and out came the tablets, whereupon was inscribed, "Cured of typhus fever, Mehemed Agha, an upholsterer, by drinking a pailful of pickled cabbage juice."

Soon after, the worthy doctor was called to another patient, a Yaghlikgee, or dealer in embroidered handkerchiefs, suffering from the same malady. He forthwith prescribed "a pailful of pickled cabbage juice." On calling the next day to congratulate his patient on his recovery, he was astonished to be told the man was dead! The Oriental Esculapius, in his bewilderment as to these phenomena, came to the safe conclusion, and duly noted it in his memoranda, that, "although in cases of typhus fever, pickled cabbage juice is an efficient remedy, it is not, however, to be used unless the patient be by profession an upholsterer."

The human body and mind may be viewed sa a large assemblage of organs and faculties, possessing native energy and extensive spheres of action, each capable of being used or abused, according as it is directed. The extent of range of these powers is a prime element in the dignity of man, yet it is this which renders education so important. As parents are the authors and guardians of the beings thus endowed, it is clearly their duty to train the faculties of those beings, and to direct them to their proper objects. "To send an uneducated child into the world," says Paley, "is little better than to turn out a mad dog, or a wild beast, into the streets."—*Combe's Moral Philosophy.*

NATURE AND THE HEART.—For how much hat is in us are we indebted to the solicitation and influence of natural objects! For the heart needs to be struck from without before it rings, as bells that let funeral and wedding go past without note of woe or joy, until the sexton's hand seize the cord, when they ring out as if every one had a singing soul of its own, self-moved, like birds. And we, too, are wrought upon by these external ministers of nature. We are mute and dead until the voice of friends, or the objects of nature, seize the eye and the ear, and, through them, let forth the soul. Thus clouds, trees, water, rocks, grass, mists, winds, snow, and frosts seem to lend us some influence of their own, but do, in fact, only cover themselves with fancies and feelings drawn from us. The heart sits regent in the world. All things are speechless and hidden without it. But the heart itself, like an enchanted spirit, cannot move or speak until nature touches and breaks the sorcery of silence, and then it seizes all things and rules over all.—*Henry Ward Beecher*

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BOTANICAL JOURNAL
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"Human experience, which is constantly contradicting theory, is the great test of truth."—Dr. Johnson.

No. 242—Vol. VIII. SATURDAY, AUGUST 22, 1857. Price 1d.

THE THAMES WATER.

Heat is the essential element of life. This has been wonderfully developed during the intense heat of the last few weeks. A very small quantity of water from the Thames has fully illustrated this principle. Though heat does not create matter, yet it acts most extensively as it comes in contact with substances in a state of decomposition. A pint of water taken from below London Bridge, when placed in a glass vessel, was found to contain an incalculable number of animalculæ and other impurities visible to the unassisted eye. Some of these were of a large size when compared with those which were discoverable only by aid of the microscope. The same quantity of water taken from the river near Hammersmith, was found to be almost free from the large kind of animalculæ, but abounded in those discoverable by the aid of the microscope. The same quantity of water from a deep well was next examined, and though it was most beautifully clear and pure to the eye, yet it contained a very small amount of living matter, but so small as scarcely to deserve notice, and certainly not to be injurious to the health of the population. But the impurities of the Thames water sufficiently account for much of the disease and sickness of the metropolis and would be enough to account for the plague if it were to break out. This filthy water is drunk by nearly three millions of human beings, if not in its impure state, yet mixed with tea, coffee, and other fluids taken by the inhabitants of the metropolis It also imparts its mephitic properties to much of the food we eat, as in it vegetables are cooked, meat is boiled, and with it flour is mixed. If this comprehended the whole view of the evil, we have a cause in constant action quite competent to produce cholera and a host of epidemics of the most deadly character. Yet this does not include the whole of the mischievous agents called into existence by this Stygian stream. Its exhalations are offensive to the nostrils of all except of those who have been so accustomed to them that they are not noticed, just as the dwellers in the vicinity of Niagara become insensible to the roar of its falls. There is, however, a virulent stench emitted, and with it a most pestiferous vapour which is inhaled by the multitudes passing over the bridges, though the more baneful effects are felt by those engaged on the wharfs and quays on the sides of the Thames. Every avenue leading to the water is a conduit pouring out the mortiferous vapour; and hence it is not uncommon or infrequent to find cases of intermittent and typhoid fevers which prove fatal to the patient.

How long this nuisance is to be endured, increasing as it is, without remedy, it is impossible to determine. We have heard of many remedial plans, but none have been carried into execution. Reports from the Board of Health, promises of sanatory measures, and a few West-end improvements, serve to divert the attention of thousands, who not only have to suffer the inconvenience and sickness arising from defective drainage and pestiferous vapours, but have to pay a

rate of five-pence in the pound for the "Metropolis Management Rate"—a sort of instalment for an expected boon which may come some seven years after we are killed by the mephitic influence we hope to have overcome by the activities of those who pocket the salaries our five-penny rate provides.

Our motto through life has been, "Business first and pleasure afterwards." Sir Benjamin Hall has adopted the reverse of this. He has directed his attention to certain nuisances which existed in the vicinity of the West-end parks, because they interfered with the comfort and pleasure of some polite aristocratic noses, while he has left the large river, with which life and health are connected, to stink on and to pour out all day and all night gases of the most poisonous character, so that every pathologist, who is also a good chemist, is left to wonder that the mortality of the metropolis is not ten times greater than it is. In all probability the rapid and numerous facilities for travelling greatly assist to prevent the amount of damage to health and life which the impure water and miasmata might produce. For, though a stomach-pump is not used to force up the poisonous ingredients taken into the system, the quick transition into an atmosphere that is pure, secures a large quantity of *oxygen*, which is forced into the stomach and thereby counteracts the injuries which would otherwise arise.

At this moment we have before us a patient who is suffering from the excess of *carbon* in his system. The first experiment of taking him into a pure air about thirty miles from the metropolis, for only two days, has produced a favourable change which is obvious to the most superficial observer. His lips, which before were livid, are now of a healthy red, and his cheeks, though not quite ruddy, have a fresh, florid hue. The use of pure water, wholesome food, and an atmosphere containing a large amount of *oxygen* will prove highly restorative, when all the nostrums of the faculty entirely fail.

The use of the stomach-bitters, as a daily medicine, will prove highly beneficial in helping to counteract some of the injurious and baneful effects of the filthy Thames water.

PERILS BY THE WAY.

(Continued from page 7.)

THE result of this visit was communicated by Mrs. G. to those of Edwin's friends who were acquainted with the subject; and through her kind influence on his behalf, it was agreed that his late unhappy fall should be passed over quietly, and that every means should be used to reassure him of their unaltered friendship, and to assist him in rising above the evil which threatened him. But in those days the total abstinence pledge was not generally known, and the advice usually given in such cases was, "that ardent spirits should be discontinued, and that wines and malt liquors should be taken only in moderation." Ah! that word "moderation," who can define its meaning when thus applied? How very many difficulties crowd in upon this question! Introduce it in any large and mixed assembly, and you discover that an almost endless diversity of opinion obtains. Then, again, there are the different constitutional habits—the various degrees of mental power and physical energy by which men are distinguished from each other. Hence the crisis of danger frequently occurs much earlier in one man than it does in another. Here is one who has lost all command of himself, shocked his friends, and forfeited his standing in genteel society, by taking no more than his neighbour, who leaves the party with the reputation of a respectable man.

Nor must we forget those changes to which our humanity is subject, and by which the stomach and the brain are often rendered increasingly susceptible of the exciting influence of alcohol. It is well known that the human system is not always equally capable of sustaining the same amount of stimulus, so that the man who has to-day indulged, to a certain extent, in his favourite beverage, without betraying any degree of excitement that would awaken suspicion in the minds of his friends, may, by repeating the same on another occasion, so diminish his reasoning and moral powers as to be borne away on the strong tide of temptation, without the capability of resistance. How extremely difficult, then, is the question of moderation!

It is very evident that neither Edwin nor his friends had duly considered this subject, or they would have adopted a much safer course than that which they pursued. But the reader wishes to ask, "Did not Edwin fulfil his promise and maintain his position?" That he fully intended, and even strove to do so, cannot be doubted. Whence, then, his defeat? Now, although it would be unkind and unjust to charge Edwin's friends with *intentionally* facilitating his overthrow, yet, as we have already seen, they were far from blameless on the occasion of his first humiliating fall, inasmuch as it was under the influence of their example and advice that he overstepped "the line which constitutes the minute transition between a state of innocence and a state of sin." Had they seriously considered the case of their weak and struggling brother, his high susceptibility of physical excitement, his severe conflict with a craving appetite for stimulants—had they remembered the apostle's injunction, "Look not every man on his own things, but every man also on the things of others" (Phil. ii, 4), and "that no man put a stumblingblock or an occasion to fall in his brother's way" (Rom. xiv, 13)—had they realised the force and beauty of his own practical illustrations of these precepts, "To the weak became I as weak, that I might gain the weak" (1 Cor. ix, 22)—surely they would have avoided those customs which rendered social intercourse an occasion of temptation and ruin to one who strongly claimed their sympathy and help.

But notwithstanding what they had witnessed of Edwin's sad experience, it seems never to have entered into their minds that the repetition of animal stimulus to one so constituted, and in whom "the temperate flow of the blood, and the even balance of the nerves," had been destroyed, would awaken a burning thirst, a dreadful gnawing, a fearful impetuosity, that would hurry its victim onward, past every barrier which a sense of propriety and duty, and interest could oppose, towards that tremendous gulf, which, in multitudinous instances, has been the grave of the fondest hopes and the fairest sdoxpects ever known among mortals. It would have been wise in Edwin to have absented himself entirely from those frequent gatherings, amidst which he had to face his potent enemy; but with his generous disposition and social habits it seemed hardly possible for him to withstand the importunity of friends who wished him to "meet in Christian society." But for the introduction of the insidious wine-cup, these friendly meetings might have been opportunities for sanctified intercourse, and a means of improvement and enjoyment. Such an omission, however, would not have been tolerated. "It would have looked particular and personal; and every respectable man *ought* to know when he has taken enough."

Thus Edwin was brought into dangerous proximity to the fatal instrument of his destruction, and those seasons of festal entertainment became *occasions of stumbling*, and the prolific sources of woes which no inexperienced mind can conceive, and which no language can portray.

How true it is that the apostate's progress lies in a down-hill way!—that the force of evil habit rapidly increases by indulgence, until it completely gains the ascendancy, and tyrannises over its victim with a merciless sway! It was not, however, until after many desperate struggles and alternate seasons of relapse and recovery, that Edwin sank beyond the hope of reformation. But so it was: each successive defeat greatly reduced his moral and physical powers, and rendered him a more easy prey to his besetment, which, notwithstanding all his vows and purposes of amendment, increased as with a giant's strength, until he became a confirmed inebriate! In further tracing this melancholy history, the scene grows darker at every stage. It having become manifest to Edwin's friends that the evil which they deplored was gaining upon him with alarming force, they sedulously strove to recover him out of the snare, first by faithful remonstrances and kind entreaties, and finally, by severe rebukes and threats of abandonment. "Drink moderately," said they; "let it be seen that you know how to conduct yourself as a man and a Christian."—"Continue to degrade yourself thus, and your best friends will be under the painful necessity of casting you off." Oh, that they had better understood the disease and its

remedy! Then would they have said, "Cease from the treacherous cup!"—"Look not upon the wine when it is red!"—"Touch not! taste not!" "We will go with you to strengthen you by our example, and never more will we place the stumblingblock in your path." Edwin was conscious of his weakness, mourned over it, and trembled at the approach of temptation. Yet, when he saw his brethren quaff their "pleasant and refreshing beverage," he felt an aching want of that stimulus, and, yielding to their invitations, again received what to him was a "deadly draught." The history of intemperance has been almost universally a history of successive alternations between sinning and repenting, between seasons of compunction accompanied with fresh resolves, and the same course of unintentional declension, which has led to the same end; with this difference—that "the power to will and the wish to act have become weaker after every fall." Such was Edwin's experience, until at length it was generally considered that he had far exceeded the limits of forbearance: then *friendship's bland smile* gave place to *the cold neglect;* and he who had been so great a favorite was shunned, or met with averted looks.

During the earlier stages of this fearful apostacy, the various spheres of Christian effort were successively relinquished, and the house of God less frequented. The estrangement grew apace. Soon the family pew was quite forsaken, and every tie which had bound Edwin to his religious home was for ever dissolved. How sad when a family of so much promise—one around which the sympathies of Christian brethren have created an atmosphere of sacred love and holy joy, and before whose vision bright prospects of comfort and usefulness have been unfolded—how sad when such a family is driven from the peaceful enclosure of the sanctuary to face the world's scorn, and endure all the woes which attend the inebriate's shameful career! Discouraged by his fruitless resolves and ineffectual efforts, and stung by the hard speeches of those who once caressed him, Edwin drank deeper and more frequently of the fiery liquid; in consequence of which he became incapacitated for the management of business; his creditors began to lose confidence and became pressing; soon the state of his affairs was found to be increasingly unsatisfactory; bankruptcy followed, and Edwin was ruined. Mrs. G. was spared the sad spectacle of this awful wreck. She saw the gathering storm, but entered into rest ere its fury burst upon the apostate's head. It may be that terrible forebodings accelerated the progress of disease, and hastened her escape from the evil to come. Deprived of his respectable and once happy home, Edwin finds a shelter—an obscure and cheerless tenement, totally destitute of those comforts to which himself and family had long been accustomed—a mere hiding place for want and woe. Oppressed by deep poverty and a sense of degradation, he greatly needs a friend, but shrinks from observation, saying in his heart, "I can expect only to be despised and neglected. Who will befriend a drunkard? Do not my inveterate habits form a barrier to shut out the sympathy and help I need? Can I wonder that men should say, 'Tis useless to attempt anything on his behalf?'" How sad is the lot of the poor inebriate!—frowned upon by the God of heaven, contemned by his fellow men, the slave of a debasing passion, the victim of gloomy and horrible apprehensions, and the sport of cruel fiends.

(To be continued.)

USEFUL HINTS ON EMIGRATION.

We reprint the following useful hints to intending emigrants from the *Emigration Record*, feeling convinced that they will prove useful to a large number of persons, and tend slightly to allay the feverish expectations of an equally numerous class, who fancy emigration a panacea for all ills and inconveniences, and picture to themselves an El Dorado in every colony we boast of. The writer gives his adventures as a clerk in Melbourne and Geelong, and winds up his practical observations with the following commonsense hints as to who should and who should not emigrate:—

"I will endeavour to show those who ought and those who ought not to emigrate. In the first place a man ought to consider well whether the climate will agree with him; for if he cannot stand

the hot weather it is madness to go. I would also warn clerks, in particular, against going, it being most difficult to obtain a situation in that capacity, for there are hundreds there doing anything but what they had been brought up to; some working on the roads, others on farms as shepherds and hut-keepers, others go in the police, and some go to the diggings. But if they will go, they must make up their minds to undergo some of the above-mentioned hardships. There are also shopmen of all descriptions in the same predicament. The class that are really wanted are farm servants and labourers of every description, and female servants. Any of these classes would not be out there many months before they would be better off than ever they were in their lives, and better fed, lodged, and clothed, and soon become independent, instead of drudging on all their lives in poverty and misery. Tradesmen, too, who are pretty well off in England, and doing a good business, with a comfortable home of their own, should remain where they are; for if they have a large family and only a little money to go with, they would most assuredly rue the day they left this country. Many imagine if they can take out £100 they can do wonders with it; but they must recollect that directly they land heavy expenses begin. A man and his wife could not keep themselves under £3 a week when I left. Supposing them to have only a two-roomed house at 10*s*. a week rental, and say another 10*s*. a week for wood and water, that would leave them £2 to live on, and they would find it as much as they could do to live on. House-rents in the town were enormously high, and very few shops are to be obtained. Persons intending to commence business ought to look around them well first and watch the markets, and find out when to buy to the best advantage, and which is the best business situation; for they might do well in one street and not in another, according to the nature of the business. Then any one that intends working at a trade cannot always make sure of obtaining employment for a week or two; and when there is nothing coming in, they would find that money takes unto itself wings and flies away. To commence business in the grocery and provision line, a capital of £500 at the very least would be required; then they would have to pay a month's rent in advance at the very least, if not three. They do not require such a large stock as in England, because the markets are constantly fluctuating, and if persons are not very careful they are likely to lose by it. Cartage to the diggings was very low when I left, but I do not think it remained so long, being only £18 a ton to Ballarat, and £12 to Forest Creek, and £15 to Bendigo, which is as low as it has ever been. Any young man of a strong constitution, capable of hard work of any kind, and who has no objection to rough it, and cannot succeed in England, could not do better than go, for by a steady, sober, persevering, and industrious life, they must succeed—recollecting it is not the amount of money earned, but the amount which is saved, that makes a man rich. For my own part, I would rather be there than here. If everything else is bad, there is always the diggings to fall back on for any one who is strong enough, and has a little money in hand to work with for a few weeks. Hundreds do make their fortunes at it, and every one stands the same chance. Many expect to see the gold as they dig the earth up, and are disappointed if they do not; but unless it is plentiful it will not appear until washed in the cradle; if it is plentiful it will appear in the tub after it has been puddled a little, but where there are nuggets there is not much difficulty in seeing them. Many go direct to the diggings directly they land, and do not come down till they have made a good sum: persons must not mind working a few weeks and obtaining nothing, for hundreds have to do the same, and find a goodly prize in the end. Let every one's motto be therefore *nil desperandum*. The climate, on new arrivals, has more effect upon the old than the young: they seem to be more liable to the colonial fever and dysentery. To any one in delicate health —but not with any chronic or fatal disease—the sea voyage restores them to perfect health; also several persons troubled with asthma and indigestion have been cured by the change; but such as consumption or any other fatal disease, I

believe the climate would not cure, for it makes even the strongest languid in summer. I have seen so many who have been respectably brought up, suffering out there distress and want, without the means to return, and not able to do hard work, from various causes, that I am anxious, if possible, to prevent it for the future. To those who are determined to go—let them: and may every success attend their undertakings! But by all means let them keep from drink, for in a tropical climate it soon undermines the constitution, and in the first sickness that overtakes them they are carried off in a few days. The country is large enough for all, and offers a wide field for talent and ability, and with unceasing energy, industry, and perseverance, success is certain."

THE VALUE OF GOOD FOOD.

It so happens that one of my friends has a powerful steam-engine, which he keeps employed in spinning wool into yarn. It is a great enjoyment to me to stand and watch that iron giant performing his ingenious work. I delight to see his massive arms swinging up and down with mighty strength, and his huge wheels and heavy shafts rolling round with resistless power. In one place he may be contemplated washing bales of wool with his iron hands, and picking them into shreds. In another, vast revolving drums collect the cleansed shreds, and press them dry. Then steel fingers draw them through fine-toothed combs, and distribute them into threads, which are next pulled out more and more slenderly between quickly turning rollers. Lastly, the threads are delicately twisted and wound upon ten thousand spindles. The giant strength of the great central shaft is thus expended upon a countless multitude of pigmy, spider-like efforts. Each of those spindles turns with a force such as an infant's finger could communicate. But the thousands of softly twirling spindles require, nevertheless, the might of a hundred horses to keep them all at their work.

Where do you think that yarn-spinning giant gets all his wonderful hundred-horse power? Whence do you suppose he derives the strength, which can make those iron hands and steel fingers continually clutch at the wool-bales, and those ten thousand spindles turn unceasingly from morning till night? You will say he gets it from steam: he is a steam-giant, and his iron limbs are driven by hot vapour. But he makes his own steam, so that answer will not do. We must go farther than the steam to find the origin of his power. I will tell you where his strength comes from—it comes out of food. If you want that big fellow to work, you must feed him. Stop his food, and he will not do another stroke of labour. Give him nothing to eat, and his mighty arms will leave off their swinging, and his supple joints will grow motionless and stiff.

And what is the food that the steam-engine consumes? If we were to go round outside the engine-room of the yarn-spinning giant, we should see for ourselves what it is. Every now and then we should observe a huge mouth opened wide, and fresh supplies of nourishment shovelled into it by a sturdy attendant, and we should hear the giant roar hoarsely with satisfaction, as he swallowed morsel after morsel. The steam-engine eats black coal, and out of black coal gets its power.

Now, as it is with that yarn-spinning giant, so it is also with your own living frame, my working friend. It matters not what your work is—whether you dig and plough in the fields, or hammer upon the anvil, or weave in the loom. The strength with which you perform your labour, comes out of the food you eat; and if you are not duly fed, your limbs too will soon refuse to play, and your joints will become rigid and still.

But your living frame, considered simply as a machine—that is, as a complicated instrument, capable of performing labour when set to work—is very much more wonderful even than the machinery of that surprising steam-giant. You can accomplish many, many times more work than he could upon the same amount of food. Suppose that he were taken off from his usual yarn-spinning occupation, and were left to lift heavy weights instead. How much food do you think we should have to supply to him, if we wanted to get him to lift a block of stone, weighing one ton, up to the height of a

mile? We should have to give him 890 pounds of coal before we could make him finish his task. That then is what his labour would cost us. We should have to buy 890 pounds of coal for him, for every ton he lifted one mile high for us. You, however, would be capable of making as great an effort, if you were allowed only two pounds of food. A strong man can carry a weight of 85 pounds along a level road for seven hours at a stretch, if he does not walk more than a mile and three-quarters in an hour. But in doing this he will, of course, have to carry his own body along too. Now if his body weighed 140 pounds, and he carried the additional weight of 85 pounds upon his shoulders for this distance, and at this pace, he would actually make as much muscular effort in the time as would have been sufficient, if entirely applied to the work, to lift a ton a mile high. Powerful as the steam-engine therefore is, the human body, viewed only as a machine, is 445 times more so. In this degree nature excels art, or rather, the work of the Divine Hand is more perfect than that of human ingenuity. Give a steam-engine only the same weight of food as a living man, and it will not effect so much work by 445 times. It is true that steam-engines perform tasks which it would need hundreds of men to accomplish, but they only accomplish this by swallowing up thousands upon thousands of times as much food, as the men would, who did the same thing. My friend's hundred-horse power yarn-spinning giant has to be fed with three tons of coal every day.

But there is another remarkable difference between steam-machinery and flesh-and-blood machinery. The food of the steam-engine sets its parts moving, but has no power to keep those parts in repair. All the while those iron shafts and rods and wheels are at work, they go on rubbing and wearing themselves away. After a few months' labour those hard pieces of metal will be quite worn up by their own movements, and a new steam-engine will have to be built to take the place of the old one. My friend knows very well that his mighty steam-engine is rubbing itself away, and that what is now worth several hundred pounds, will, by and by, come to be of no more value than old iron. He knows too that the more food he gives his steam-engine, and the more work he gets out of it, the sooner it will be worn away. Not so, however, with your body. The food you take, repairs its wear and tear, besides keeping it at work. The bread and meat which you eat, first get changed into the substance of your body; actually become flesh and blood; then, as flesh and blood, they perform a certain amount of useful labour. Like the iron of the steam-engine, they are worn away by their work; but that is not of very great consequence, because fresh food will make fresh flesh and blood, capable of doing fresh work. You therefore are fed, not only that you may be able to work, but also that you may be kept in repair while you are working, at least during some three-score years and ten.

The food first renews the worn body, and then it is the renewed body which is worn again by work, yet again to be renewed. How admirable is this superiority of the divinely planned mechanism to the conception of man!

There is something, however, which coal does for the steam-engine, besides setting it to work—it makes it warm. Soon after the fire has been lit in the furnace, the iron gets furiously hot, and the water in the boiler turns into scalding steam; all this heat really comes out of the coal. It was hidden away in the black mass, and only required that to be placed in the furnace, to be set light to, and to be blown upon by a draught of air, in order that it might be brought out, and made serviceable. One pound of coal has heat enough hidden in it, to boil 60 pints of water.

But your body too is warm. And where do you think it gets its heat from? Starve yourself for a day or two, and you will find this out. You will, under such circumstances, feel colder and colder, as well as getting weaker and weaker. A good nourishing meal, on the other hand, will directly make you glow with warmth. Food warms the body, as well as furnishes it with strength. There is as much heat produced in your body in a single year, as would be sufficient to turn eleven tons of ice into steam; as much, in a single day, as would boil eighty pints of water.

Food then does three distinct things for the living body, and the living body must be duly fed at proper intervals, in order that these three distinct services may be rendered: it keeps the body warm; it maintains it in a state of repair, notwithstanding the wear and tear to which it is exposed while labouring; and it gives it strength and power. Weigh out two pounds of bread and meat, and look at them. The two pounds make no very great show. But eat them, and in the wonderful contrivances of your body, those two pounds of bread and meat will sustain its machinery unwasted during the exertion of a fair day's work and in addition to this will supply heat enough to make 80 pints of water boil, and strength enough to lift a ton weight one mile!

In order that food may accomplish these important services, it is necessary that it shall be wisely chosen and no less wisely used. Many men get wasting disease and death out of food, in the place of nourishment, warmth, and vigour. If we were to heap up wet sand in the furnace of the steam-engine, instead of coal, the fire would be smothered, and the movement of the machinery stopped. If we were to heap up gunpowder there, the whole would be blown into fragments in a moment. Or so again, the fire of the furnace might be extinguished by smothering it with too great an abundance of coal, or it might be allowed to smoulder and die out for want. Exactly in the same way the fire and strength of the living body may be smothered by a too heavy load, or by a bad kind of food. Or it may be fanned into the explosion of destructive inflammation and fever. It is important therefore, that every one should know what right food is, and how good food requires to be managed. When I go down to see my friend's yarn-spinning steam-engine, I find that a very great amount of care is bestowed upon its feeding. Only the most suitable coal is supplied for its consumption, and the stoker, who feeds it, is selected from among his companion workmen for his judgment, and he is trained to be exceedingly careful, watching its wants, and studying its appetite, so as to give exactly what it can manage, a little and often, never allowing the furnace to be either too hungry or too much gorged.

My friend is ten times more particular about the feeding of his steam-engine, than he is about the feeding of himself, and in this respect he is pretty much like the rest of mankind. Men select and regulate, with the most cautious deliberation, what they put into the iron furnaces of their machinery; but into those delicate and sensible living furnaces which they carry about in their own bodies, they toss with reckless indifference, now, as it were, lumps of lead, and now explosive gunpowder. There is, indeed, sad need that men should be made more thoughtful than they are about feeding their bodies. As a guardian and supporter of the health, good food stands close by the side of fresh air and pure water. Bad feeding, on the other hand, is the ally of foul air and deficiency of water, in working out dire disorder. Improper management in feeding, then, is another way in which men lay up for themselves disease and suffering, and cause sickness to take the place of health.

Man's food consists of an almost endless variety of substances. The surface of the earth is covered with things which man can eat, and get strength out of. This is a very bountiful arrangement, made by Divine Providence, in order that the rapidly increasing multitudes of the human race may be supported. Into whatever diversity of climate or country man can go, there he finds a rich abundance of the nourishment which the continued well-being of his body requires. In the hot tropics he gathers bread-fruit from the trees, and plucks rice from the ground. In temperate lands he covers the soil with corn, and pastures beef-yielding oxen and mutton-affording sheep upon the grass. In the frozen wastes that lie near the poles, he gets whale-blubber and seal-oil from the inhabitants of the ocean. The water teems everywhere with fish, the air with fowl, and the solid ground is literally painted green with its productiveness. Nearly all food-substances are, however, more or less solid bodies, in order that they may be kept conveniently in store until they are

immediately needed, and it is, therefore, a natural consequence of this arrangement that they have to undergo a sort of preparation before they can be put to use. The several parts of the body which have to be nourished are far more delicate than the finest hairs. Now suppose that you were set to get beef and bread into hairs, I fancy you would find yourself rather puzzled by the task. God however is not so puzzled. He pours beef and bread into fibres that are as much smaller than hairs, as hairs themselves are smaller than men six feet high and three feet round. You will be glad, no doubt, to understand how this is done.

(To be continued.)

SEDENTARY OCCUPATIONS.

Health is the greatest of earthly blessings: with health a peasant may be rich, for he may be content; and without it a Crœsus may be miserable in the midst of his gold. And yet this inestimable gift is daily and hourly flung away, as if, like money, it was of use only when spent; or as if its preservation was not worth the cost of a little reflection and self-denial. It is our purpose hereafter to bring before the readers of this *Journal* some plain and simple observations relating to the preservation of health; but we would now attempt to explain, in a popular way, why sedentary employments are so generally injurious, and to offer some suggestions, by attending to which, our sedentary brethren may avoid in a great degree the mischievous consequences now too often found attending their pursuits.

Health depends mainly on three essential conditions—sufficient nutriment, pure air, and a uniform flow and circulation of the blood throughout the entire system. Experience amply proves that vegetable food will sustain the human frame in strength and vigour. Beyond a certain point, it is not so much *what* we eat, as our power of digesting and assimilating it, on which our physical strength depends. As regards food and air, we are, most of us, dependant on circumstances; and we shall presume that those for whom we write eat such wholesome food as they can procure, breathe the air such as they find it, and can exercise no great power of choice in either of these particulars. It is, then, to the *third* condition of health—namely, a regular and equable flow of blood to every part of the system—that we shall chiefly confine ourselves, because sedentary occupations interfere directly with this condition; and much may be done, by a little care and forethought, to counteract their injurious tendency.

Man is naturally calculated to sustain, when in health, severe and continuous labour. This, his natural condition, provides for the uniform circulation of which we speak; but when he spends the greater part of his time in bodily inaction, and more especially when at the same time his *mind* is at work, then, in two different ways, the great rule of health is violated.

It is an ascertained fact, that when any portion of the animal economy is called into action, it is subjected to immediate *waste*, and requires an immediate succour in the form of an increased supply of the vital fluid. Thus, the engagement of the eyes and brain in sedentary pursuits, tends directly to that state of fulness in the blood-vessels of the head, which, when in excess, is called *congestion*, and becomes a most dangerous, and too often fatal malady. We say "in excess," because, upon the principles just now laid down, an extra flow of blood to those parts is necessary at certain times, and it rests with ourselves to keep it within proper bounds.

Now, if we take a healthy man, after half an hour's moderate exercise in the open air, as a type of the human frame in its best state, we shall find that the large muscular lower limbs are receiving—are, in fact, at any given moment in possession of—a very large proportion of his blood. Such is by no means the case when the same person has been sitting a couple of hours at a table or desk, especially if exposed to a low temperature. This blood must flow somewhere; and a good deal of it goes to the head—not only what is necessary, as we have supposed—but more than that, and thus a tendency to congestion is established.

If all which is withdrawn from the lower limbs crowded at once to the head, the consequences would be immediately fatal, as apoplexy or paralysis would be thereby induced. But nature takes means

to prevent this, and the internal organs have their share of the superfluity. They are thus "engorged" and oppressed, and a tendency to disease is engendered in them also. Such are the effects of those conditions of body in which the equable flow of the circulation through every part alike is compromised.

The great object, then, should be the maintenance of the desirable state of *equilibrium* which we have supposed above; and failing that, we should aim at as near an approaeh to it as it is possible to attain. For these ends, it will be as well to attend to the following simple rules:

Avoid study as much as you can during the first periods of digestion. The eyes and stomach are both supplied with nerves from the same branch, and the employment of the eyes in reading or writing soon after eating deranges digestion, and throws the whole system out of gear. All who transgress this law, will have a reckoning to pay sooner or later. Avoid the sitting posture as much as possible. This may be done by using a standing-desk for reading and writing, and transferring your work to it now and then. If this cannot be done, get up occasionally, and take a few turns up and down the room; or even stand up and sit down again. If your feet are cold, let your walk be on the toes, *springing* on them, as is done in dancing—a most excellent winter exercise for the sedentary. If need be, wrap your feet and legs in some warm garment when you resume your seat: an old cloak or dressing-gown will do. It is far better to use a hot-water footstool —anything rather than *submit* to cold feet. You may as well expect to live without air or food, as to enjoy health unless you can contrive to counteract a tendency to cold feet, if you are unfortunate enough to suffer from it.

Never imagine that you are doing yourself justice, if you do not walk as much each day as can be done without absolute fatigue. What this may be, will vary according to age, state of health, &c.; but, as a rule, it may be laid down, that a slight feeling of lassitude is about the best measure you can have. The healthy will only increase their debility by attempting long "constitutional walks" beyond their powers, and without proper training. Great mistakes are made here by young men in their summer excursions, from which they often return with the seeds of jaundice and fever lurking in their constitutions, in consequence of overheating, chilling, and overexertion.

Sedentary persons should feed moderately, and avoid fermented liquors as much as possible, especially if of a naturally sanguineous temperament. Those who are naturally pallid and dyspeptic should use a more generous diet, eating a moderate quantity at each repast, and, above all things, avoiding that disturbance of the digestive process which is the result of application to study soon after eating.

This is by no means a complete system; but it contains nothing which may not be profitably put in practice by the sedentary. They should also avoid small print in reading, small hand in writing, and insufficient or too glaring light at all times.—*Chambers's Journal.*

GARDEN FLOWERS OF AUGUST.

"A drowsy indolence now hangs on all;
Each creature seeks some place of rest, some shelter
From the oppressive heat: silence prevails,
Nor low, nor bark, nor chirp of bird is heard;
In shady nooks the sheep and kine convene:
Within the narrow shadow of the cot
The sleepy dog lies stretched upon his side,
Nor heeds the footsteps of the passer-by,
Or at the sound but raises half an eyelid,
Then gives a feeble growl and sleeps again:
No sound is heard but humming of the bee,
For she alone retires not from her labour,
Nor leaves a meadow flower unsought for gain."

JOANNA BAILLIE.

IF there is less variety in the flowers which during this month expand afresh, yet there is as great an amount of brilliant colouring in the garden as in the more prolific season of midsummer; for dahlias, sunflowers, and amaranths, wear hues more deep and glowing than the rose or lily of June. A magnificent flower is the dahlia, and it is pleasant to think that its culture affords an innocent recreation to many a florist of humble life. The autumnal flower-shows in which it is exhibited, give evidence how wonderfully the skill of the florist has improved the stately flower, which, when it grows in its native land, is neither so bright nor so beautifully

formed as the blossom to be seen in the humblest garden. The dahlia grows wild on the sandy plain, as well as on the mountains of Mexico, and was introduced into Europe by the great naturalist Baron Humboldt. He, in the year 1789, sent it to Professor Cavanilles, of the Botanic Garden of Madrid, who in that year presented it to the Marchioness of Bute. This lady kept it in the greenhouse, and from this species *(dahlia variabilis)* nearly all the numerous varieties have been obtained. In the field of Mexico it is a single flower, not remarkable for the brightness of its purple or lilac tint, and growing to the height of about eight feet. Few flowers vary more in colour when under cultivation, and we have now the dark purple and richest puce, with every shade of scarlet, crimson, and pink; while the dahlia of pure white, or delicate yellow, grows beside others streaked with the variegated hues of the tulip or ranunculus: though that great desire of florists has not yet been fulfilled in any approach towards a blue dahlia, nor is it often of unmingled white. More than two hundred varieties have been raised from the seeds of the common purple flower.

In 1802, two other species of dahlia were added to that already in the garden. They were both procured from Mexican lands. The barren, rugged dahlia *(dahlia frustranea)*, and the scarlet flower *(dahlia coccinea)*, both, however, produce smaller blossoms and fewer varieties; and the variable dahlia, which was first brought into our land, is still the favorite flower of the florist. A species of recent introduction *(dahlia excelsa)* called the tree dahlia, is said to attain, in Mexico, the height of thirty feet, with a stem proportionably thick.

The Mexicans boil and eat the tuberous roots of the dahlia; but even could we spare them for such a purpose, they are not palatable to European taste.

A handsome American plant is now equally conspicuous on the parterre. This is the tall and brilliant sunflower, *(helianthus annuus)*, which is a native flower of Peru and Mexico, as well as of Canada, and several other parts of North America. In the Canadian woods it grows to a great height, and the blossom is as large as a dinner-plate. On the prairies, Catlin observes of it, that it often taunted them by striking against their faces, as they made their weary way through the tall grass. Dr. E. D. Clark also saw it in abundance on the steppes of Tahtary, growing very tall and large. The ancient Peruvians, when found on their native plains by the Spaniards, were worshippers of the great natural light of day. They had their temple of the sun, and the maidens who officiated in the service of their god, were crowned with wreaths of sunflowers, made of purest gold, while they wore on their breasts similar emblems of the idol of their worship. The holier faith professed by their conquerors, as yet was not accompanied by that spirit of love, and truth, and justice, which we who read our Bibles know to be its sure fruit, but which in times of papal darkness was understood but by a few, and the sight of these golden ornaments, while they aroused their hatred of idolatry, appealed but too surely to their covetousness. And when, at a later season, the Spaniards saw the fields bright with the same golden hue, and observed these magnificent flowers on hill and valley, by wood and river side, Peru must have seemed to them a land of glowing gold.

The seeds of the sunflower are recommended as an excellent food for cattle, and the settler in the woods of Canada gathers and stores them for a winter supply for his poultry. In the United States the flower is cultivated to a great extent for the oil procured from its seeds, which is as good as Florence oil. The whole plant, and especially the golden blossom, exudes a thin, clear, resinous substance, the strong odour of which resembles that of Venice turpentine. The sunflower is not found wild in any part of southern Europe, but in Asia and Africa a few species are to be met with. Several double varieties are cultivated in the garden.

The numerous clusters of the garden hydrangea *(hydrangea hortensia)* bloom in the autumnal season. This flower is often called the Chinese guelder rose, as it is much cultivated in the gardens of China, as well as in those of Japan, but its native place of growth is unknown.

The flowers are usually of a pale rose colour, but are sometimes blue. Great pains have been taken by cultivators to discover under what conditions of the soil the blue colour may be insured. The yellow loam of Hampstead heath will produce it, as does also the peat of the bogs near Edinburgh, and the soil in the neighbourhoods of Berlin and of St. Petersburgh. Water impregnated with alum, steel filings, carbonate of soda, or common salt, has been known to give the blue to the hydrangea; but on no one of these can any certain dependence be placed. Inglis says that this tinge is very general in the flowers of this plant in the isle of Jersey. The hydrangea is there seen growing as a shrub at every cottage door, or in one of those gardens which are always planted by the houses of that island. It is often twelve feet in circumference and five in height, and is tall and branching enough to form a shade, under which one might find shelter from the sun of August. "These beautiful shrubs," says Inglis, "here almost as trees, form the avenues in the neighbourhood; and at the season in which they are covered with their large blue flowers, the effect is indeed most captivating. I have nowhere seen the hydrangea so luxuriant in growth as in the Channel Islands, and the flowers are most commonly blue, not pink, as we are accustomed to see them in England."

As the different flowers, called everlasting flowers, bloom during this and the two following months, they may here be noticed together. The yellow flower, called love everlasting, has been long known to botanists as the eastern everlasting *(gnaphalium orientale)*, but it is now very generally included in the genus *helichrysum*. It grows wild in abundance on some of the mountains of Asia, and pilgrims who visit the flowery Carmel, and the lofty Lebanon, gather it from their sunny slopes, as memorials of their pilgrimage. Another kind which has been introduced into England, the blood everlasting *(gnaphalium sanguineum)*, is generally gathered by those who, when treading the Mount of Olives, wish to carry thence some record of a visit to so sacred a spot; and the durable nature of the chaffy petals of the lowly floweret, render it a very suitable one. Few flowers, indeed, preserve their beauty like this, when brought from a warmer climate; and to these blossoms the description of the poet is applicable—

"They look as infants do, who smile when dead."

(To be continued.)

NOTICES.

Dr. Coffin may be consulte gratis, as usual, every Saturday evening, from four to eight o'clock, at the Botanic Establishment, No. 24, Union-street, East, Spitalfields. *Patients not admitted to the waiting-room after eight o'clock.*

Dr. Coffin may also be consulted at his residence, 24, Montague Place, Russell-square, daily *(Sundays excepted)*, from one to two o'clock (fee one guinea), on any day except Monday, on which day the fee will be five shillings only.

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BOTANICAL JOURNAL
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"Human experience, which is constantly contradicting theory, is the great test of truth."—Dr. Johnson.

No. 243—Vol. VIII. SATURDAY, SEPTEMBER 5, 1857. Price 1d.

THE BOTANIC HOSPITAL.

We have frequently invited the attention of our readers to this subject, and regret that our appeals have been responded to so very feebly. Had the zeal and devotedness of the advocates of the system been equal to the importance of the object, the building would have been erected, and the blessings of such an institution diffused through wide and extensive spheres. Nothing can be accomplished without earnestness and perseverance. Those who are in earnest ought to exert their influence with others, to make them feel an interest in the movement, and to secure co-operation upon an extensive scale. Lukewarmness will smother the most laudable design, and hinder the progress of the noblest plans. And it is of this lukewarmness we have to complain. The benefits proposed are for the people, and they should assist to make these benefits available. Contributions have not been so freely bestowed as they were some time ago. There ought to be a periodical contribution from each metropolitan district and from every provincial town in the kingdom. And if this were done systematically, the amount would soon be collected, sufficient to justify the purchase of land and the commencement of the building. There are many eligible plots of land which might now be obtained at a reasonable price, and thus a guarantee might be given of the *bonâ fide* intention of applying the funds at present collected. We believe that thousands might enjoy the advantages of Medical Botany, if there were but greater facilities for making the merits of the system known, and we know of no facilities like those which a Botanic Hospital will at once afford.

When once in action, we believe that a very small subscription, compared with the number benefited, would be required. It would, to a great extent, be self-supporting. For if other institutions, such as homœopathic and hydropathic hospitals, have succeeded, there is no reason why we should doubt the success of a Botanic Hospital, conducted upon the same principles. The wealthy invalid would be received, and he would gladly and handsomely pay for his attendance and medicines, and thus furnish surplus means to provide for the more necessitous sufferers; and though the relief of suffering and restoration to health of patients which other hospitals had ejected as incurable would be the primary objects to be accomplished, yet these would not be the only ones. Registers would be kept, cases would be recorded, and information most valuable would be accumulated. Then, after the system had been fairly in operation, proofs of its superiority over all others had been given, and means for its application to our army and our navy had been provided, it would be worse than madness for any government to refuse to admit well educated and skilful Medical Botanists to practise their healing art side by side with allopaths, homœopaths and hydropaths. They would then have a fair opportunity of judging of the merits of each system, and of determining which was most worthy of their patronage. The advantages of an establishment like that proposed would not be restricted

to any given locality, but would be open and available to all applicants, to the extent and capacity of the building ; for though, in connection with a Botanic Hospital, there would be "out-door" as well as "in-door" patients, yet it is to the latter that the greatest importance would be attached, because they would be prohibited from everything which would interfere with the remedies prescribed, and every auxiliary for their recovery, such as cleanliness, diet, ventilation and temperature would be judiciously regulated.

It would be well, if the friends to this movement would, in the several districts in which they live, look out for some small estate which might be submitted to the attention of the committee and trustees of the fund already collected. The estate should not be less than five acres, and the outlay need not exceed £250. It might be made immediately productive, and the produce be an annual contribution to the hospital fund. Wherever a plot of ground may be selected, it should be of a dry soil and in a genial atmosphere. The appropriation of a plot for this purpose would be *taking action*—doing something. Hitherto there have been words enough; deeds are wanted now. A step in the right direction would give fresh impulse to the enterprise and greatly push it forward towards its completion. It appears to be the very thing that needs to be done at the present time. If the friends at Sheffield, who have recently made an effort to raise funds for this object, could now have their attention called to a plot of ground that was about to be purchased for the purpose of having a Botanic Hospital erected on it, we have no doubt that from that town alone half the purchase-money would be forthcoming. Other large towns in the provinces would contribute in the same proportion ; and those persons who have contributed would take heart to collect and to give, and thus in less than a year, the foundation stone might be laid, and before two years part of the building might be ready to receive patients, and the whole project take such a substantial form as should most effectually refute the remark of one who professes to be "a friend to Medical Botany but a foe to all humbug:" this friend was asked to subscribe to the hospital fund, and he refused, saying, "Hospital, hospital, it is all moonshine ; show me it, or where it is to be, and then you shall not find a more liberal donor than I will be." This individual may be fairly taken as an exponent of a large class of matter-of-fact men, who always want their *quid pro quo*, and will be ready to give when there is something tangible to show for their money.

BOTANIC HOSPITAL FUND.

To the Editor of the Botanical Journal.

Sir,—No doubt many of your readers have wondered as to what have become of the proceeds of the bazaar which was held in Sheffield last year. The amount sold was about or rather over sixty pounds. Fourteen pounds was paid for goods on sale or return, and about fifteen pounds in expenses of advertisements and rent of rooms for the occasion. At all events, there is forty pounds in the Sheffield and Rotherham Bank, in the joint names of myself, Mr. Esberges, and Mr. Beck ; but, Mr. Editor, to inform your numerous readers how much money was realised at the bazaar, is not the sole object of my writing at the present time. We have a quantity of goods still remaining unsold, and we intend to hold another bazaar shortly ; and as we have pledged ourselves to raise the sum of one hundred pounds, we shall feel obliged if any of our botanic admirers, at a distance, will contribute their mite, by sending subscriptions in the shape of furniture, books, fancy ornaments, wearing apparel, both useful and ornamental. Allow me, on behalf of the committee, to return thanks for the kind assistance rendered by our friends, and especially to Dr. Chippendale, of Liverpool, for the handsome present of two live pigs, and if there is any other friends wishful to improve the Sheffield breed of pigs, they will be thankfully received, as we can always find a ready market for them. In conclusion, let me remark that a many can help one, when one cannot help a many, and as many have received great benefit by the botanic treatment of disease, and some have acknowledged, that had it not been for Dr. Coffin, they

would not have been now in the land of the living, others have stated, and that publickly, the botanic treatment has saved many pounds a year, both in doctors' bills, and a great amount of pain and suffering, yet a many of these individuals, when appealed to on behalf of so noble a cause as the building up of an hospital for the education of proper persons, to carry out the botanic treatment, and cure of disease, but more especially, that formidable disease, consumption, button up their pockets, and remark, "Oh! well, it's a very good thing, but I shall never want it." Others state they are afraid the money will get into wrong hands, and be misappropriated; but there is one thing, if the money does get into wrong hands, and gets misapplied, we shall not have ourselves to blame. Others are glad enough to have benefits conferred upon them, and not particular at whose expense, but when asked to give towards others who are suffering, and not having the means to obtain a cure, act like the Levite, pass on the other side; but, thank God! there are some noble souls, who, having felt the benefits, are wishful to confer them upon others, who labour not only with their mind, but with their means. We have fifty agents spread over the whole country: if each agent would guarantee five pounds each (and it's only a small sum for each town, supporting an agent to collect, or, in other words, *find or grind)*, it would make up, with what we already have in hand, one thousand pounds. If each agent would make it his object, we should have an hospital in twelve months' time; and what a glorious day that would be in the annals of Medical Botany! what a glorious achievement it would have obtained! and whenever it comes, and I hope it won't be long, I shall not only feel proud, but I shall feel a great deal bigger a man than I am at present.

I am, yours truly,

JOSEPH NADIN.

204½, *Shales Moor*, *Sheffield*.

P.S.—Don't forget to send in your subscriptions early.

LOOK AT HOME.—Observe with the utmost attention all the operations of your own mind, the nature of your passions, and the various motives that determine your will, and you may in a great degree know all mankind.

THE WORTH OF FRESH AIR.

WE have, in former numbers of this Journal, often alluded to this subject, and we have much pleasure in quoting from a pamphlet bearing the above title. Your neighbour, John Stedman, is set fast with aches and pains, and is very ill. You have just been to see him, you say, and you cannot think why it is that people are every now and then attacked in this way with sickness. You have been told that God sends disease; but for your own part you cannot understand then why it is that some of your neighbours, who, like John Stedman, seem to be the most honest and deserving, get the largest share of it. I think, my industrious friend, I can perhaps help you to the explanation of the riddle. At any rate there are many things, touching upon this very subject, which as an old acquaintance, and one who has learned through long intimacy to take great interest in all that concerns you, I have for some time desired to say. I shall now seize this opportunity to make a beginning, and shall sit myself down comfortably that I may chat with you more at my ease. Pray do not trouble yourself to move anything. This empty chair near the door will do excellently well for me. I know you will listen to me with attention and patience, first for old friendship's sake, and then because you will very soon feel that what I do say is intended frankly and solely for your good.

You have a fine, smart-looking clock, I see, ticking away there opposite. But the old fellow can hardly be so correct as he seems; his hands point to eight, although the day wants but a couple of hours of noon. I fear there must be something wrong about him, notwithstanding his looking so vastly well in the face.

You say you cannot make the clock keep time. You wind it up carefully every Saturday, and set it correctly, and yet before the next Saturday comes round, it has either lagged hours behind, or it has galloped on hours too fast. It goes as if it were moved by the uncertain wind, instead of being driven by regular machinery, and it was a shame for the man to sell you such a bad-going thing.

If the clock never did behave itself better, you are right in this: but perhaps you are too hasty in finding fault with the maker; he may not altogether deserve the blame. Let us just open the door of the case, and peep at the inner workmanship, to see whether we cannot discover some cause for the irregular performance.

What is this? As soon as I open this little door I stumble upon something that looks rather suspicious; it is a quantity of light flue, and hair, and dust, mingled together. The clock-maker never put that into the case. Then, observe how every wheel and pinion is soiled with dirt, and every crevice and corner is choked up with filth. It really would be a very wonderful thing if the wheels did move regularly. The secret of the bad working of your clock is, simply, that you have not known how to take care of it, and use it fairly. I dare say it went very well when it was turned out of its maker's hands, but he never meant it to be in the state in which it now is. You must send it back to him, and get him to clean the works and oil the wheels, and then you must try whether you cannot prevent it from getting into such sad disorder again.

Now, your neighbour yonder with his aches and pains and his sickness, are you sure that he is not in very much the same predicament as this clock? If we could look into the works of his body, are you confident that we should not find them choked up and uncared for, instead of being in the condition in which they were intended to be? His aches and pains, are they not the grating and complaining of deranged and clogged machinery? I am quite aware that sick people generally are not sensible of having allowed anything to come near to their bodies which they ought to have kept away. But neither did you know that dirt was getting to the works of your clock, although we discovered it there in such plenty. The dust and dirt which collected there, first flew about in the air, scattered so thinly and lightly that you could not see them. So, too, other things which you cannot see may have been floating about in great abundanee round you, some of them being to the living frame what dirt and dust are to clock-work. That there are such invisible things floating around living creatures, and that some of these clog and derange the working of their frames, I think I shall have no difficulty in showing you. I hope I shall also be able to point out to you, that many of them may be discovered, although they cannot be seen, and may be driven away or avoided.

That wonderful object which you call call your body, is actually a machine like the clock, contrived and put together for a certain service. It has for its works, muscles and bones, and blood-vessels and nerves. These works have been most beautifully fitted and adjusted: indeed they are the workmanship of a skill which cannot fail. The maker of your body is the great and unerring Power, who has also made all the rest of creation. It is God.

God made your body with supple joints and free limbs; with strong muscles and ready nerves. The machine was perfect when it came from His hands. It was then capable of going better than the best clock that was ever constructed by human ingenuity. It was able even to cleanse, and oil, and repair itself, and it was prepared to continue its orderly movements, without suffering the slightest derangement, for sixty or seventy long years. But when God placed this perfected piece of delicate workmanship at your disposal, He, like the clockmaker with his clock, required that you should at least take care of it, and use it fairly. If, however, you do not do this, then as with the clock, so will it be with your body. If you keep it amid dust and dirt, no other result can come but the clogging of its works, and the derangement of their movements. Out of that dusty old clock-case it is my purpose to draw this very surprising and important lesson in your behoof. Whenever men get out of happiness and ease into wretchedness and disease, it is almost sure to be their own fault, and the consequence of their own doings. Either they perversely and wilfully do something which they know very well they ought not to do, or they do something which they ought not to do, in ignorance, not knowing that it is wrong.

Comfort and ease are to body and mind, what steady and even movements are to clock-work—signs that the machinery is in perfect order. Discomfort and dis-ease (absence of ease) are to body and mind what fitful and irregular movements are to clock-work; signs that the machinery is clogged and in disorder. You are always inclined to rebel against discomfort and pain. Never give way to this inclination. Discomfort and pain are friendly monitors, that come to you to perform a kind service. They come to warn you that there is something wrong in and around your own body, which requires to be set right.

You will observe that I have said men nearly always have themselves to blame when they get out of health and into disease. I have said nearly always, because it occasionally does happen that the suffering is not immediately caused by the sufferer's own wrong doing. This, for instance, is the case when a child has a constitutional disease, which has been communicated to it by a parent. It is, however, even in these instances none the less true, that human blindness or wilfulness leads to the mischief, and this is really the practical point that I am desirous you should see. These are the cases in which, in accordance with God's law, "the sins of the fathers are visited upon the children." The parents have done wrong, and the offspring have to pay the penalty. The line of obvious duty, however, is in no way altered here. If a man suffers because his parent did what was wrong, this really is an additional reason why he ought never to do that which may cause his own children to suffer, in like manner, with himself.

There is this further proof, that even in these cases it really is man's wrong doing which leads to human suffering. When the children of parents who have done what was wrong, go on doing only what is right through several generations, their offspring at last cease to suffer, and become altogether healthy and sound. The burthen of the fathers' sins is then, at length, mercifully taken off from their shoulders.

Having listened patiently to this little sermon, you would now like me to come to the point, and show you some of the dust and dirt which are scattered around the living body, and which at times get into the machinery to the damage of its working. First of all, in my endeavour to do this, I should like to make you quite comprehend the possibility of there being very weighty matters pressing close round you, which you nevertheless are entirely unable to see, even in bright daylight. Just come out with me, here, upon the road. How pleasant and fresh the day is. Do you not feel the gentle breeze fanning your cheek as you turn up the lane? Yet you cannot see the breeze! What is it, then? Certainly it is something, for it touches and even presses against your skin. But it is something, too, which has weight and power of its own. Observe how it shakes the leaves of the trees as it sweeps past them. It is, as you know, the same unseen breeze which also drives round those great mill sails yonder with such violence, and which grinds as much corn in that mill, as could be ground by the efforts of a dozen horses, kept up to their work by the whip. We have not had to move far, then, before we have come upon something which we cannot see; before we have proved to ourselves that we must not altogether depend upon our eye-sight for information, even concerning the existence of surrounding things.

But what is this? The breeze is not so fresh here as it was just now at the end of the lane. There is some very disagreeable smell now floating upon it. Here again we can see nothing, any more than we could when we had only the fresh breeze blowing around us. But there must be some cause for the unpleasant odour. The smell gets stronger and stronger as we approach this bank. We climb over the bank, and we find on the other side, in the corner of a field, a manure-heap, from which the smell is evidently poured out. Now that smell is really a vapour, bred of decay in the manure, and then steaming up from it into the air. If our eyes were as sharp as our noses, we should be able to see a great host of little bodies rushing up from the manure, and scattering themselves through the air. It is because

some of those little bodies strike upon the lining of our noses, as they are drawn in by our breathing, that we smell the unpleasant odour. The nose feels the touch of those bodies as a smell.

Wherever substances which have been alive, are dead and undergoing decay, vapours of this kind are bred and steamed forth. This is the way in which dead things are got rid of; they turn to vapour and crumble to dust. If we could see all the vapours that are bred of decay, we should be sensible of a thick mist covering the entire face of the land and sea, and rising up from it continually. Some of these vapours have strong smells, like those which issue from the manure-heap; but some of them cannot even be smelt, any more than they can be seen.

But these invisible vapours bred of decay, were not intended to be breathed by living creatures; and, indeed, cannot be breathed by them without mischief. We are able to stand near the manure-heap for some time without taking any particular harm, because the vapours are scattered as fast as they are formed, and are mingled in small quantities with large quantities of pure air. We thus breathe air tainted with these vapours, rather than the vapours themselves. But suppose all the air were taken away, and you were left standing with nothing around you but these vapours, what do you think would happen to you? You would be dead in less than three minutes, killed by the poisonous power. The vapours whch are bred in decaying substances are poison-vapours.

(To be continued.)

THE STAGES OF LIFE.

Mankind spring not up full-formed, and quite equipped for battling with adversity, like the fabled army from the teeth of dragons sown by Cadmus, but like the seed which is scattered from the hand of God over all the earth. As the plant has its periods of growth, completion, and decay, so have we the spring, summer, autumn, and winter of earthly existence; but the analogy holds no further than as relates to the successive stages of bodily being. The gradations of the moral being, though following an order, for the most part, in beautiful correspondence with the seasons of life, are proportioned in their progression rather to the amount of appropriate sensibility elicited from the soul by the sweet socialities of relationship and kindliness, than to the degrees of physical development. The infant smiles in response to the visible love of its mother's heart long before the struggling will meets the disappointment that engenders tears. The faith of the child accords with the feebleness of its body and the experiences of its mind. Thus we learn, from what we feel, to trust that charity which inspires the maternal bosom, and to regard the affection which we feel as an unquestionable evidence that the Almighty Parent loves beyond the conception even of a mother's heart.

If we would avoid injuring a soul, we must treat the body with tenderness and wisdom. A young child is a newly created spirit, introduced into this amazing world for the purpose of obtaining a knowledge of material things, and of sentient beings, by contact and sympathy. It is utterly ignorant, but, unless the brain and senses be defective, it possesses, and by degrees can exercise, all the mental qualities of a philosopher, gradually becoming acquainted with the properties of objects, both of thought and sense, by observation and experiment. All the faculties of childhood are busily at work as fast as they are developed, and every propensity is ardently seeking for indulgence. Propensity, in short, is a bodily provocation to action; and the soul must yield to it, if it knows not any better means of pleasure; for the soul always does, and always must, aim at enjoyment. The pure enjoyment of a human being is *now* derived through the senses, by which alone it obtains proof that it is in its proper place, with regard to others' and its own convenience; therefore its senses must be cultivated, that it may find, through a bodily correspondence, the fellowship it needs with other human beings and with nature. A child, with all its senses perfect, requires only instruction and sympathy to complete its education. But what a fulness of meaning lies in the word education! Who is sufficient for the vast undertaking? Let each man and each woman who has to do with children, imagine the circumstances of each child, and then let just that intense

love and tenderness and patience and firmness, be shown, in guiding and blessing the little one, that each would desire for himself, under Divine and human management, in the like case. This is the whole secret of correct education.

The education that does not assist to invigorate the body is injurious, and all that favours continued inaction fosters idleness and debility. The young child has a nervous system at least five times larger, in proportion to its body, than the adult. Hence the restlessness and animation of childhood, its quick exhaustion, and ready recovery, its power to bear rapid and varied movements, and its intolerance of monotony. If we do not consider this nervous constitution in training children, we shall do violence to Heaven's laws, and inflict injury on them with wo to ourselves. Well-conducted mental training invariably favours the better development of the body, and, by strengthening the nervous system, tends to render all the vital functions more vigorous and regular. As the mind not steadily and determinately employed, fails to stir up the bodily energies, it of course allows a corporeal indolence which of course confirms its own listlessness, and at length causes both mental and physical effort to become alike difficult, awkward, clownish and heavy. The mind hopefully and outwardly busy affords the healthiest stimulus to the brain; but the soul without sufficient motive, and left to the desultory influences of ignorance and accident, is always either violently agitated or corruptly stagnant.

In boyhood and in girlhood germinate those sympathies which ripen into the reciprocities which constitute the charm of society, and confer all that is excellent in manly or in feminine virtue and dignity. In childhood the expanding heart importunately demands kindness, and is as ready to communicate as to receive, according to its ability and understanding. But, on advancing a little further into life, the feeling of new necessities, and the general aspect of others towards us, force upon the will a felt propriety of standing more independently of parental guardianship. The possession of more bodily power gives us the desire to exert it for ourselves. The pride and emulation that properly urge us to obtain what is acknowledged to be valuable, now stimulate our efforts. This is the turning point of life. According to the direction now taken is our intellectual and moral destiny on earth generally determined. The ideas, at this period presented, modify and colour all the future, because the sensibilities of the body are at the height of fervent intensity, the senses keenest, the brain most impressible, and the vital energies most ready to incorporate impressions; and hence the soul is most alive to the conduct of others, and is most ready to sympathise with nature in every aspect.

In the transition from the state of affectionate obedience to that of comparative self-reliance, the sense of social kindness is most powerful, and the effects of evil example and of tyrannical rule most mischievous, for then, if the reasoning faculties and human instincts have been duly trained by domestic discipline, the heart becomes more alive to those emotions which magnify the interests of life, and a higher state of development occasions greater vigour of function, and new sensations suggest a multitude of new ideas; existence seems suddenly expanding, and the young being feels conscious of demands upon his intellect which his experience does not enable him to meet, he compares himself with others, and then modesty and diffidence kindle the blush, and awaken the soul to doubt and apprehension, lest its desires, sentiments, and endeavours should be misinterpreted, and meet with derision when most demanding sympathy and assistance. Then commences the period of true temptation and of danger; the informed soul struggles for mastery over the body, and conscience is at war with instinct. If the ingenuous spirit be not now met with Christian encouragements and admonitions, the bashful youth may be driven to desperate expedients to subdue his excessive sensibilities; and, finding the inconvenience of being more timidly sensitive than those about him, he may, as if from a necessary determination, rush for relief into the opposite extreme of boldness and effrontery.

KEEP THE SKIN CLEAN.—Disease rarely occurs when the skin is in a perfectly healthy state, and when a free discharge takes place by it. The first symptoms of ill health are generally marked by the interruption of its functions.

VEGETATION OF TEMPERATE AND COLD CLIMATES.

The oak is the most valuable timber tree of the colder temperate zone for strength, durability and general usefulness. One which was felled in 1810, for the use of the navy, contained 2,426 cubic feet of sound and convertible timber. The bark was estimated at six tons; five men were employed twenty days in cutting down and shipping it, and two sawyers were engaged for five months in cutting it up. The whole produce of the tree when brought to market was nearly £600. It will not flourish in tropical climates. Bishop Heber mentions that in the Botanic Garden at Calcutta he saw what excited a melancholy kind of interest—a little, wretched oak, kept alive with difficulty under a sky and in a temperature so perpetually stimulating, that no time was allowed it to shed its leaves or recruit its powers by hybernation.

We have not space now to enter into details respecting our other forest trees; we may just state that the birch ceases on the coast of Norway at 71°; the beech at 58°; the sycamore and the ash at 63°; the lime occurs in Russia at 60°; the elm and maple at 57°. This, too, is the region of our corn plants. Wheat does not succeed beyond 63° N. lat., and in Russia not beyond 60°; in Kamschatka the limit is 51°. On the east of America, corn does not extend beyond 52°. Barley sometimes ripens, in favourable summers, as high as 70° in Norway. Nor does the cultivation of our corn plants succeed better in the torrid zone than in polar regions except in elevated spots where the heat is moderated by the altitude. We know nothing respecting the original place of growth of the cerealia, though there is every reason to believe that their cultivation is coeval with the existence of man upon the earth. Within the temperate zones their cultivation is all but universal, and in the more favourable situations, such as Egypt, etc., its produce is very great. Humboldt mentions wheat plants in Mexico which sent up forty, sixty, or seventy stalks, the ears of which were almost equally well filled, and contained one hundred to one hundred and twenty grains each.

Some of the distinguishing plants of this zone, in Europe, are the cruciform plants; such as the mustard, cress, wallflower, stock, cabbage, turnip, sea-kale, candy-tuft, radish, etc.; the umbelliferous tribe, as carrots, caraways, parsley, parsnip, celery, hemlock, etc.; the *caryophilleæ*, a class including the pink, carnation, lychnis, catchfly, chickweed, etc.; the *campanulas*, and a division of the composite plants, including endive, hawkweed, dandelion, sowthistle, and a great variety of plants of a similar structure. The extensive heaths covered with our common heath or ling *(calluna vulgaris)* form a remarkable feature in the European part of this region. In that part of Asia which lies in the colder temperate zone, vast plains characterise it, called steppes: these are generally barren tracts, often strongly impregnated with salt, and abounding in salt lakes and pools, with a stunted and scattered vegetation. Here and there are more fertile spots, where trees and food plants grow, but they are like the oases of the desert. Species of saltwort *(salsola)*, tamarisk, sea lavender *(statice)*, licorice, vetches, and wormwood, are among the prevailing steppe plants.

In that portion of the southern hemisphere belonging to this zone, the southern part of Patagonia, the Falkland Isles, Terra del Fuego, Kerguelen's Land and Prince Edward's Island, with a few other very small detached islands, are all the land. On these vegetation rapidly diminishes as they approximate to the antartic circle; and it is a well-ascertained fact, that the temperature decreases much more rapidily from the equator towards the south pole than towards the north. Vegetation decreases as the latitude increases, till at length utter desolation reigns. This is partly owing to the want of heat in summer, and more than to the greater cold in winter. In high northern latitudes, the power of the summer sun is so great as to melt the pitch between the planks of the vessels; while in corresponding southern latitudes, the thermometer does not rise above 14° (18° below the freezing point) at noon in a season corresponding to our August. Sandwich

Land, in a latitude corresponding to the north of Scotland, is perpetually covered with many fathoms of snow. The south Shetland Isles have but one flowering plant, a grass (*aira antarctica*), and are no less ice-bound than the last; while the Shetland Isles in the north of Scotland, in an equally high latitude, are both inhabited and cultivated. South Georgia in the same latitude as Yorkshire, but south, is always clad in frozen snow, and produces only a few lichens, mosses, and wild burnet; while Iceland, ten degrees nearer the pole in the northern hemisphere, has eight hundred and seventy species, more than half of which are flowering plants. But a few degrees make a great difference in the southern hemisphere. Terra del Fuego, only six degrees nearer the equator than the frozen South Shetland, is clad with dense forests of Winter's bark and beech. Species of arbutus, myrtle, barberry, current, and fuchsia, and calceolarias, violets, crowfoots, plants of the cruciform and pink tribes, thrift, and celery, are among the most conspicuous of the herbaceous plants.

It is singular that, in this distant island, there are a greater number of plants identical with those of the British isles than in any other country of the southern hemisphere; thirty-three flowering plants, and forty-eight mosses, with nearly all the lichens, being common to both, though principally absent from the intermediate latitudes. On the Falkland Islands, though in a lower latitude, not a tree is to be seen, and the only large shrub, *Veronica elliptica*, is very rare. Two plants, however, are peculiar to these islands. One of these, the balsam bog *(bolax globaria)* is an umbelliferous plant, but of very peculiar habit. It grows in tufted and very firm hemispherical masses, of a yellow-green colour, often four feet high, and as many in diameter; a strong-smelling resinous substance exudes from it, perceptible at a distance. The tussack grass *(festuca flabellata)* is a still more singular plant, but yet the most useful in the islands. Each tussack is a separate plant, occupying about two square yards of ground. It forms a hillock of matted roots, rising straight and solitary out of the soil, often six feet high, and four or five in diameter, from the top of which issues a thick grassy foliage of blades, six feet long, drooping on all sides, and forming with the leaves of the adjacent plants an arch over the ground beneath it, which affords shelter to sea lions, penguins, and petrels. Cattle are exceedingly fond of this grass, which yields annually a much greater supply of excellent fodder than the same extent of ground would do either of common grass or clover.

The sub-arctic zone, stretching from 58° lat. to the arctic circle, with an average mean temperature between 39° and 42° Fahr., but varying exceedingly in different localities, is the region of the firs and willows: the beech, oak, and pine, or Scotch fir, will not flourish within it, or rather not beyond 60° N. lat., though on the western coast of Norway, under peculiar circumstances, the pine has been found as far as 70° N. lat. In the interior, the noble fir appears in its place. Prodigious forests of these are spread over the mountains of Norway and Sweden; and in European Russia alone, 200,000,000 acres are clothed with pines and firs alone, or occasionally mixed with willow, poplars, and alders. In very many places, on both the Swedish and Norwegian mountains, these forests are not accessible, and they are of value only when situated near a river or an arm of the sea. The Gulf of Bothnia is surrounded by one vast, contiguous, unbroken forest, as old as the world, and consisting chiefly of pines. From these countries we derive our best deal timber; red (or yellow) deal, which is most valued, being the produce of the Scotch fir *(pinus sylvestris)*: the white deal comes from the spruce fir *(pinus abies)*. When the markets of the Baltic were closed during the war, an enterprising individual conceived the daring idea of turning the immense forests of pines on the mountains of Switzerland to the purposes of commerce. This he actually effected by contriving an immense trough, formed of 25,000 pine trees, six feet broad, and from three to six feet deep, and 44,000 English feet in length. Along this, constantly kept moist, the pines descended from the mountains into the lake of Lucerne, a distance of between eight and nine miles. The

larger pines, which were about one hundred feet long, ran through the space in about six minutes. The markets of the Baltic having been once more opened by the peace, the speculation was abandoned as unprofitable.

Turpentine and tar are also two important products of the fir tribe. The former is the thick, glutinous sap, which is abundantly poured out when the trees are pierced near the ground. When distilled, spirits of turpentine come over, while the solid residuum is resin. 392,942 cwts. of turpentine were imported in 1848. Tar is procured by heating billets of the wood in a kind of rude oven; the tar oozes out, and is collected in a reservoir below. The ancient Greeks extracted their tar in precisely the same way as do the Bothnians at this day. 150,888 barrels of tar were imported in 1848, each barrel containing thirty-one and a half gallons. The climate and productions of Norway and Sweden cannot be taken, however, as a fair specimen of the vegetation of this zone; as, from their peninsular character, they enjoy a much warmer temperature than almost any other country within its limit. Even here, however, the apple ceases at 63½°, the cherry at 63°, and the pear at 62°. The vegetation of Iceland in the meadows and pastures is much the same as our own; there is, however, a total want of trees, for the birch and alder, though abundant, attain but a small height. Corn is cultivated to a very trifling extent, often not at all for a long series of years, for, towards the end of summer, the weather is so changeable that the grain seldom ripens. The sea pea (which we have already noticed) is used as an article of food, and they are said to be very well flavoured. The principal vegetables, such as cauliflower, potato, turnip, etc., succeed. Many of the sea-weeds are collected, and used as food. The Iceland moss *(cetraria Islandica)* is also gathered for food; it grows in great quantities, and is collected from the same grounds every three years. The bitterness of the plant is extracted by soaking it in water, and it is then eaten, generally boiled with milk; a kind of bread is also made of it. The time of gathering the Iceland moss is like a merry harvest-time. In Siberia, vast forests of firs appear; while in Kamschatka, similar forests are found of the birch. Many of the smaller plants are similar to our own. The juniper abounds, and the dog-rose, the Scotch rose, the red currant, the hawthorn, the white poplar, the mountain ash, and others, are found wild in Kamschatka, as well as in our own country. On the shores of Hudson's Bay, it is said no trees are found north of 60°.

THE VALUE OF GOOD FOOD.

(Continued from page 45.)

The All-wise and Almighty Designer of life has seen fit to employ in the work an agent that is already familiar to us. This agent is that pure water, which we have been recently contemplating, busy in its employment of carrying waste matters out of the way. God washes food into the body, exactly as He washes used-up material out of it. The very water, indeed, which carries away the waste, has first economically carried in the food. God has laid down pipes of supply which run everywhere through the structures of the body, exactly as he has laid down drain-pipes. These pipes branch out to the hair, the eyes, the head, the feet, the flesh, the bones, and the skin. At the beginning of the supply-pipes there is a great pump always at work, pumping on the supply. This pump is called the heart. Place your hand on the left side of your chest, and you will feel how this heart is springing at its pumping work. You will be sensible that it is raising itself up at its labour, at every stroke, so determined is the exertion of its strength. The supply-pipes are termed arteries. One large arterial pipe comes out from the heart, and then sends out branches in all directions, very much like the water-pipe sent out from the great reservoir into all the houses of a town. The branch-pipes get smaller and smaller as they go from the main, until at last they are many times smaller than the smallest hair. The food that is washed through the branching supply-pipes, by the strokes of the heart, is called blood. There are about 20 pounds of blood in the body of a full-grown, active man; of these 20

pounds nearly 16 are nothing else than pure water, the other 4 pounds are the finely divided food which is being hurried along by the water. This, then, is what I mean when I say that the food is washed into the body by the agency of water. Take the finest needle you can find, and stick its point anywhere in your body, and you will find that blood will rush out of the hole. This will show you what great care has been taken to send supply-pipes everywhere. These is no spot, however small, into which a needle-point can be thrust without wounding a supply-pipe. When the heart pumps, red blood thus flushes through every portion of the living frame, repairing and warming it, and supporting it in its offices. But you will say I have not yet proved my case. Food is washed out of the heart to all parts of the body. This heart, however, is already in the body. There is therefore no washing of the food into the body here. It is already in, when it is pumped from the heart; but where does the heart get the blood from, which it pumps onwards? How can it be shown that the blood comes out of food? This is to be my next step. I am going on to explain to you that the heart gets its blood from the food which is eaten; that the blood, indeed, is finely divided food given up to the conveying power of water; food finally prepared for its task of nourishing the living frame How, then, is the food thus prepared? how is solid food turned into liquid and easily flowing blood?

Food is turned into blood by being digested. Men have digesting bags, more commonly known under the designation of stomachs, inside of them, into which portions of digestible substances are placed from time to time. These inside digesting bags are particularly convenient, because, when a fair quantity of food is packed away there, men may move about in pursuit of their business without having to give any further heed to the digesting work that is going on in their behoof. Before, however, food is passed down into the digesting bag, it is first ground in a powerful mill, and mixed up with liquid into a sort of paste. The mill has many pairs of very hard stones set in rows over against each other. It is called the mouth, and the stones are termed teeth. The liquid which makes the ground food into paste, is poured out from little taps laid on in the mill or mouth, and is called the saliva.

When the ground and moistened food has been deposited in the stomach, more liquid is poured out upon it there. This liquid is termed the "gastric" or stomach juice. Next, it is shaken, and churned up, and turned over by the movements of the stomach-bag. After a few hours' churning, it has become so soft and pulpy from the soaking, that it is ready to advance another stage. Then a sort of sluice-gate at the end of the stomach is opened, and down the pulp goes into the bowel, there to be mixed with another liquid called bile or liver juice, and the soaking or digestion is completed. The pulp then consists of two things—a white milk-like liquid; that is the rich and nourishing part of the food, ground and soaked down to the utmost fineness, and mingled with some of the water which has been drunk. And a coarse solid substance, still undigested; that is the waste part of the food which has resisted the dissolving power of the stomach, and is on its way to be rejected as good for nothing. The white milk-like essence of the food gets sucked up, by a quantity of little holes or mouths that lie all over the lining of the bowel, as the pulp moves down this canal. Then it is carried by tubes provided for this purpose into one main channel. This channel runs upwards until it ends in the great forcing pump. Poured into the heart, it reinforces the blood which it finds there, and is sent onwards with it through the supply-pipes. This is how food becomes blood.

Very wonderful, indeed, is this dissolving power of the saliva and stomach juice! If the food were merely beaten with water into a moist pulp, and were then left in a warm place, it would soon ferment, and become putrid, and good for nothing. The digesting juices, on the other hand, so long as the stomach is healthy and strong, keep the moist pulpy food sweet in the warm stomach, and merely draw out from it a sweet milky essence of nourishment, which consists, indeed, of the very strength of the food. The saliva mixes with the ground food much more readily than pure water

could, but itself has a very great affection for water, so to speak. It thus brings the ground food under the full dominion of water. The saliva, the stomach-juice, and the bile, together, are able to draw out and change into milk-essence every nutritive particle that is contained in the food, however diversified this may be. Each has its own method of operating, and each takes its own share of the dissolving labour; but the result is, that all which is needed for the service of the body is taken out from the food, and made ready to be washed along into the blood.

But there are certain distinct and different principles which the body requires should be furnished to it out of food. You stand there very firmly on the ground, and you look jolly and substantial enough. I should think, from your appearance, you have been in no way stinted in the matter of supplies. I estimate, at a guess, that your substantial body would weigh some 150 pounds, if placed in the scales. Now what do you think the greater part of those 150 pounds is composed of?—Bones? Not exactly, you are too soft for that.—Flesh? There seems plenty of flesh, but the flesh is not the most abundant element. —Brains? I am afraid they are less than the flesh. No. You will wonder indeed when I tell you that three-quarters of that firm and well-knit frame are nothing else but water. If I were to take your body and dry it until all its water was gone, there would remain behind nothing but 37 pounds of dry mummy-substance, in the place of the original 150 pounds; 113 pounds of water would have steamed away. You will see then that water must be furnished in fair quantity, with or in the food. You have heard, I do not doubt, many horrible and sad things, which have happened when people have been kept a long time without water. Thanks to the bounty of Providence, this privation is, however, one that very rarely occurs.

But now, supposing that we have steamed away the 113 pounds of water, and that there are left behind 37 pounds of dry substance, what does that substance consist of? It still contains several distinct things, which have had entirely distinct offices to perform in the living frame.

First, you know, there is that flesh, which makes so comely a show. Now, we shall be able to find out, how much there really is of flesh. Of dry flesh-substance, including a little skin and jelly, there are 17 pounds, and that is the working part of the frame. It is by its means the ton-weight can be lifted one mile high in a single day, and that all the moving and acting, of whatever kind, are effected. Remember, then, that the acting part of the living body is flesh-substance, and that of that flesh-substance there are not more than 17 pounds in a full-grown man.

While your body is alive, there is a hard frame-work inside of it, upon which the soft flesh is fixed, in order that it may be kept in a convenient and durable form, and around which the water is packed in a countless myriad of chambers, and vessels, and porous fibres. The hard internal frame-work is composed of what are called bones. In the dried mummy, left when the moisture is all gone from the body, there is rather more than nine pounds of this mineral bone-substance. But there are also nearly three-quarters of a pound of other mineral substances, which were scattered about in various situations, and which were employed for various purposes. There is salt, which was in the saliva, in the gristle, and in the blood. There is flint which was in the hair. There is iron which was in the blood. There is potash which was mixed with the flesh-substance. There are lime and posphorus in the hard millstones, the teeth; and there is phosphorus, which was in the nerves and the brain. These mineral substances, with the bone-earth, which is principally a kind of lime, form together the ash or dust which is returned to the ground after the body has decayed. It is the flesh-substance which flies away to become poison vapour in the air.

(To be continued.)

NOTICES TO CORRESPONDENTS.

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BOTANICAL JOURNAL
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"Human experience, which is constantly contradicting theory, is the great test of truth."—Dr. Johnson.

No. 244—Vol. VIII. SATURDAY, SEPTEMBER 19, 1857. Price 1d.

THE WORTH OF FRESH AIR.

(Continued from page 54.)

You would like to know why it is, as these poison-vapours are poured out in such quantities from all decaying substances, that you do not see people dying all round from breathing them. Did I not tell you, in the case of the poison-vapours of the manure-heap, that you could breathe them because they were freely scattered into the fresh air? Now just come a few yards this way. You observe the smell of the manure grows less and less. Here you cannot any longer perceive it, although the wind is actually blowing over the manure-heap towards us. The fact is, these poison-vapours cannot bear the presence of pure air. Pure air is the natural antidote or remedy for their poison. The instant it mingles with them it begins to destroy their hurtfulness, and in a few moments it has so thoroughly accomplished this good work that no single trace of mischievous power remains.

Has it ever occurred to you to ask yourself why the pleasant wind blows over hills and fields, and through lanes and streets? You know very well that the wind always is blowing, more or less. Go out when you will, you find it, if you turn the right way. It is the most uncommon thing in the world for the air to be altogether still. The fresh wind blows so constantly over hill and plain, because God sends it to sweep away and destroy the poison-vapours that steam out from decaying substances. The breeze is God's invisible antidote to the invisible poison. The pleasant wind blows in order that the air may be kept fresh and pure.

In the open air the fresh wind very soon scatters and destroys all poison-vapours. But civilised men do not always dwell in the open air. The wind sometimes makes them feel cold; so they build themselves houses to shut out the wind. To-night, before you go to bed in your small sleeping-room, you will close the windows and the door; and you will think, when you have done so, that you have shut out everything which could harm you, with the cold. But what will you say to me if I show you, that after you have closed the windows and the door, poison-vapours are bred in great quantities in the room where you are lying, and that so long as you remain in it, they keep gathering more and more strength, and becoming more and more dangerous? Just come back with me to the cottage, and let us look at the room in which you were sleeping last night. The beds, you believe, are not yet made—never mind that. I often go into rooms under such circumstances, and perhaps upon this occasion it may be even better for the purpose I have in view, if I find the chamber in disorder. At any rate let us go upstairs and take our chance.

Sure enough you have been at great pains here to keep the cold from getting in. There is only one casement in this low, small room, and that casement has not been unbarred since yesterday. I do not need to be told this. I make the discovery myself; for you have also kept

something from getting out, which had better have been away. I feel at once this is not the same kind of air which we were breathing just now in the open garden. Indeed, I cannot remain in the room without opening the window. There; I throw open the casement, and in a few minutes the air will be as fresh here as it is outside of the house.

Now what do you think it was that made the air of this room so unpleasant? It was the poison-vapour with which it was laden, and which had steamed out of your body mixed with your breath during the night. Poison-vapours are bred in the bodies and in the blood of all living animals, just as they are in manure-heaps. All the working organs of your frame being exhausted by use, undergo decay and are turned into vapour, and that vapour, being bred of decay, is poison-vapour, which must be got rid of out of the body as quickly as it is formed. Living bodies are worn away into vapour by working just as mill-stones are worn away into dust by grinding. You would see them waste under work, if it were not that they are repaired by food. You wonder, then, that as this vapour is poisonous, living creatures do not destroy themselves by the poison they form in their blood? Occasionally human creatures do so destroy themselves, as I shall presently show you. But the merciful Designer of the animal frame has furnished a means by which, in a general way, the poison is removed as fast as it is formed. Can you not guess what this means is?

God employs the same plan for driving away the poison-vapours from the inside of living animal bodies, that He uses for the purification of the air in the open country. He causes a current of air to circulate through them. Notice how, while we are talking together, our chests heave up and down. You know this is what we term breathing. Now, when we breathe, we first make the insides of our chests larger by drawing their walls and floors further asunder. Then we make them smaller by drawing their walls and floors once more nearer together. When the chest is made larger, fresh air rushes in through the mouth and windpipe, and through the twig-like branches of this pipe, until it fills a quantity of little round chambers which form the ends of those branches.

The air-chambers are covered by a sort of net-work, stretched tightly over it. That net-work is formed of blood-vessels, through which the blood is constantly streaming, driven on by the action of the heart. This blood sucks air from the air-chambers into itself, and carries that air onwards to all parts of the living frame. But the blood-streams in the net-work of vessels also steam out into the air-chambers poison-vapours, which are then driven out through the windpipe and the mouth. Thus the breath which goes into the mouth is fresh air; but the breath which comes out of the mouth is foul air. Air is spoiled, and, as it were, converted to poison, by being breathed; but the body is purified by the breathing, because it is its poison-vapours that are carried away, mingled with the spoiled air.

This then, is why men breathe. Breathing is the blowing of a fresh wind through the living body for the cleansing away of its impurities. The purifying part of the air which is breathed actually circulates with the blood through all parts of the frame. Exercise quickens and exalts the cleansing powers of the breathing—and this is why it is of such great importance to the health. When you go and take a brisk walk in the open air, you increase the force of the internal breeze. The exertion makes your chest expand to a larger size, so that it can admit more fresh air, and it also causes your blood-streams to course along more rapidly, so that a greater abundance of the air is carried on through your frame.

A very large quantity of fresh air is spoiled and rendered foul by the act of breathing. You, yourself, spoil not less than a gallon every minute. In eight hours' breathing a full-grown man spoils as much fresh air as seventeen three-bushel sacks could hold! If you were shut up in a room seven feet broad, seven feet long, and seven feet high, the door and windows fitting so tightly that no air could pass through, you would die, poisoned by your own breath in a very few hours; in twenty-four hours you would have spoiled all the air contained in the room, and have converted it into poison, provided you could have lived therein so long.

One hundred years ago the English were allowed by the Great Mogul or Emperor o India, to build warehouses and dwellings in certain parts of his empire. One of these mercantile settlements or factories, as they were called, was planted on the bank of a large river, just where Calcutta, the capital city of Bengal, now stands.

In the year 1756, the Nabob, or tributary king of the province of Bengal, died, and was succeeded by a very young man, who bore the outlandish-looking title of Surajah Dowlah. This young barbarian cast a covetous eye on the neighbouring British factory, and one summer day, attacked the place suddenly with a large army. The small party of English who were in the factory, despairing of their ability to effect any successful defence, tried to make their escape to some ships which were lying in the river.

Several of the fugitives reached the vessels in safety. But in the confusion of the flight, 146 individuals fell into the hands of the victorious Nabob. These, his officers thrust for the night into a small cell, which was used as the prison of the fortress, and was known under the dismal name of the Black Hole of Calcutta. This cell had but two small square holes for windows, and was only 18 feet long and 14 feet wide, so that the last person of the 146 had to be crushed in upon the rest with violence, as the door was closed and locked. The anguish of the crowded captives soon became so great, in this vile hole, that the neighbourhood resounded with the noise of their struggles and cries. As the night wore on, these sounds, however, gradually sank into silence. When the morning came, and the door of the prison was opened, the reason of this silence became sadly apparent. In the place of the 146 prisoners who were shut up on the previous day, they took out 123 corpses, and 23 miserable beings, who looked more like ghastly spectres than men, and who could hardly be said to be alive. This occurrence furnished one remarkable instance of the deadly power of the poison-vapours which are poured out from the inside of living beings. Now I will tell you about another case of a similar kind.

(To be continued.)

THE VALUE OF GOOD FOOD.

(Continued from page 60.)

But besides water to do transporting work, flesh-substance to do active mechanical or moving work, and mineral substance to do passive mechanical or supporting work, there is yet another kind of material within the body. You have as much as six pounds of fat, scattered about or packed away amid the 17 pounds of dry flesh. What can that be for? What use do you think you make of your fat? You have, I dare say, a sort of comfortable sense that it keeps you warm. You know that some of your lean neighbours cast envious eyes towards you in severe winter weather, and have chattering teeth and goose's skins, when you are quite free from such tokens of chilliness. But you will nevertheless be surprised when I tell you what a really fiery piece of business this warming by fat is. Your fat is a store of fuel, which you are going to burn to heat your body, exactly as you burn coal in the grate to heat your room in the winter. It is oil laid by, to be consumed gradually, as a sort of liquid coal, in the furnace of the living machine. Of this we shall, however, have to say more, by itself, by-and-by. For the present merely bear in mind that fat is the fuel-substance which furnishes warmth to the body. It also combines with the phosphorus and with water to make up the nerve-substance and the brain-substance, which do the feeling and thinking work. These two, however, will have to be spoken of hereafter by themselves.

Let us now then take stock of the stores we have on hand, within the skin of a living body of 150 pounds' weight. We have

Water for transport and moistening - - -	113 lbs.
Flesh-substance for movement	17 „
Mineral-substance for support	10 „
Fuel-substance for warming	6 „
If we add these together, our sum is - - -	146 „

We still want four pounds more to make up our 150. Where are we to get these? Why we have got them already. Have we not already learned that there are four pounds of freshly digested food being washed along through the supply-

pipes of the body? We have only to add to the previous 146 lbs.
Dry substance of the blood 4 „

and our tally is completed to 150 „

As the blood is the direct source of supply to all the structures of the body, the material which is being poured out through the supply-pipes, it follows that those four pounds must contain within themselves flesh-substance, mineral ash, and fuel. There are in 20 pounds of blood, 16 pounds of water to wash along the more substantial part through the supply-pipes, three pounds ten ounces of flesh-substance, four ounces of fuel, and about two ounces of mineral matter—salt phosphorus, lime, and the rest.

The blood is speedily exhausted of its richness, because it gives up its several ingredients to the different parts of the living frame to confer warmth, repair, and active strength upon them. The warmth is procured by burning the fat: you will easily understand that: you know that an oil lamp gets very hot whilst its flame is kept up. The repair is effected by the plastering of new matter out of the blood, upon all the different structures as they wear away. Each structure selects for itself out of the blood what it wants, and arranges what it takes in due order. But you would now like to know how active strength is supplied by the blood. It will not be possible just now to tell you concerning this all which might be, and indeed ought to be told, because we have other and more practical things to bend our attention to. But this much you will easily comprehend. The power comes out of that very change of substance, which we call wear. The "wear" is actually the turning of the substance into power. Upon another occasion this may be made more plain.

The blood supplies what every part of the living body requires, and of course itself loses what it gives out. But the impoverished blood is in its turn renewed and refreshed by occasional supplies of food. Here then we at last arrive at the pith of the subject under consideration. The food supplies the blood, and the blood supplies the body. Therefore efficient and good food must have in it all the several principles required by the body—flesh, fuel, and mineral. No kind of food is sufficient to maintain vigorous life and health, which does not contain a due amount of every one of these.

When the young animal comes first into the world, its powers of digestion are weak, and it is fed for some time entirely upon a food already digested for it by the parent. This parent-prepared food of the young animal, which is called milk, of course contains within itself all the several matters which have been spoken of above, as essential for the supply of the body. Thus when the dairy-maid curdles milk with rennet, and draws off the whey, afterwards pressing and drying the curdled part, the curd at length comes out of the press as cheese. That is the flesh-substance, which was contained in the milk. When the dairy-maid turns and twists cream about in the churn, until butter collects in the midst of it—that butter is the fuel-substance, or fat, which was contained in the milk. The whey which is taken off from the cheese, or butter, is principally water; but if this water were steamed away by heat, there would remain behind a small quantity of fixed ash, which could not escape. That is the mineral substance. Here then we have what we may term a specimen of Nature's pattern-food. The relative proportion in which the several food-principles are contained in milk, becomes a most excellent guide to the way in which they should be used in the more artificial feeding of later life. Take then, as a receipt for pattern food, the following, which expresses the relative quantities of cheese, butter, and ash, in milk:—One ounce of flesh-substance, two ounces of fuel-substance, and ninety grains of mineral substance, to twenty-two ounces of water.

The most extensively and generally used of all the articles of human diet is bread. It has been fittingly called the staff of life. Now it is a curious and remarkable fact that bread contains in itself just the same principles as milk; but it is of course drier, and has proportionally more fuel and less flesh-making substance. The flour, from which it is made, is composed of a

stiff, sticky paste, and a fine white powder, well mixed up together. The paste is flesh-substance; it is nearly the same thing, indeed, as the flesh of the body, in all excepting arrangement. The powder is starch: just such as is used in the work of the laundry. Now starch is merely fat in its first stage of preparation. It is vegetable fat in so firm and dense a condition that it can be stored away in the husks of grain, or even in bags made by man, and kept there unspoiled until it is wanted. When starch is about to be used as fuel in the living frame, it is first turned into sugar and gum, and then into perfected fat, or oil. Sugar and gum are starch in the process of turning to fat. They are the store-fuel making ready for burning. Even seeds, when they begin to grow, become sweet, because their starch is then converted into sugar. Remember carefully then, that starch, gum, and sugar, are all fuel-substance, in different stages of preparation for burning.

Now if you were going to make flour into bread, how would you proceed? First you would place seven pounds, we will say, of flour in a pan. You would hollow out a hole in the middle, and pour in half a quarter of a pint of yest, mixed up with a pint of warm water. You would stir this up with a wooden spoon, until it formed a thickish paste. The paste is the sticky flesh-substance of the flour, moistened with water, and holding the starch fast in its grasp. After the mixture has stood an hour and a quarter in a warm place, you would next add two teaspoonfuls of salt, and knead the whole well up together with as much more warm water as is sufficient to make the compound into a stiffish dough. If you intended to make good bread, you would spare no labour in this part of the process. You would knead it, and work it, and knead it again, until your arms and hands ached with the work. You would do this in order that the yest and the water might be forced into contact with every portion of the dough. If any were left insufficiently moistened, and unyested, that portion would not be changed into good bread. Having finished the kneading, you would leave the dough standing another hour and a half, covered lightly over by a cloth. During this time it would rise, its inside becoming more and more spongy. The reason of this is, that the yest, moisture, and warmth have made some of the starch turn into sugar and gum; and as it has been doing so, a sort of fixed air has burst out from the starch, and forced the sticky paste into bubbles. After the hour and a half of standing, you would cut the dough into two or three pieces, and you would place these upon a tin in a well-heated oven, having its door thoroughly closed, and bake them for an hour and forty minutes. The heat of the oven would then soon destroy the activity of the yeast, and fix the dough, so that it could not froth and bubble any longer. In due time you would draw forth the dough from the oven, and find it baked into loaves.

When bread is well made, by the skilful employment of these measures, the rising of the dough marks the change of the store-starch into sugar and gum through fermentation. This is really a beginning of the work of digestion, and, in so far, a lightening of the task the stomach will have to perform. It is very important, however, that the change shall be carried to a proper point, and then stopped. Bread should be neither too heavy nor too light. If the former, it will not be easy enough of digestion; if the latter, some portion of the virtue will have been unnecessarily wasted. Bread contains a great deal of water, and so to a certain extent is both food and drink. One hundred pounds of flour suck in 50 pounds of water, when made into dough. This is all retained in the bread, however dry it may seem to get. If stale bread be heated for half an hour in a close tin case, nearly to the temperature of boiling water, and then be taken out, it will be found to be restored to the condition of new bread. In wheaten bread, to every 11 ounces of water, there are 12 ounces of mingled starch, sugar, and gum, and one ounce of flesh-substance.

Brown bread is more rich in flesh-making substance, bulk for bulk, than fine wheaten bread, because the outer

husk of the grain, which constitutes the bran, itself contains a large quantity of that material. When the dough is formed from whole meal, instead of from fine flour, the cost of the bread is considerably diminished, at the same time that its bulk and weight are, even in a greater degree, increased. The addition of a little milk to the dough has the effect of still further raising the nourishing power of the bread, besides causing it to keep fresh longer; a pint of milk adds one pound to the weight of a loaf. A quarter of a pound of mashed potatoes, mixed in with every four pounds of flour or meal, also improves the keeping quality.

(To be continued.)

WHAT IS MEDICAL BOTANY?

To the Editor of the Botanical Journal.

Dear Sir,—The question is often asked, What is Medical Botany? and I doubt not, but some of my brethren are like myself, often too busy to say explicitly what may be said to distinguish it from the hodge-podge of herbalism, and the convenience of placing in the hands of such a Journal, with our ideas, may be agreeable to both, and not only so, but it will enable the inquirer to carry into another circle what his memory may not retain. For this purpose I forward you a few lines on the subject, inclosing seventeen cases for the register-sheets. The names of those whose initials only are inserted, may be had on application. With respect to the Botanic Hospital, I perfectly agree with you, that any government must be mad to refuse well educated and skilful Botanic Practitioners; and for the advancement of this object, in compliance with the hint of Mr. Nadin, I guarantee five pounds towards it, and hope every practitioner will at least do the same.

Yours truly,

T. W. Stowell, M.B.

Brighton Botanic Dispensary,
Church-street, September 7th, 1857.

Many suppose that this somewhat novel term is the mere mixed herbal and mineral medicines as recommended by Culpepper, Thornton, Green, Parkenson, and other less intelligent herbal writers, under a new name, to excite public attention—which is a grave error. Another class of the community, more enlightened and more interested on medical subjects, go farther astray, and, like the self-conceited Pharisees of old, will neither receive the truth themselves, nor allow others, if they can prevent it, and from prejudice in favour of the Palmerian (or poison) practice of medicine, they throw doubt and dust in the eyes of the inquiring mind, and brand indiscriminately all who are not of their faith as quacks or medical heretics: thus, up to the present, scarcely a day passes but its news relate the melancholy tale of death from the administration of some deadly compound, either unintentionally as medicine, or by mistake, from the doctor, or maliciously from a false friend. But happily for the age in which we live, truth cannot bear the gag without public loss; therefore its enemies must late or soon be vanquished, and its triumphs bring back the treasures of health to the wan myriads of Adam's race. And this is the noble object of Medical Botany. To accomplish this in the face of medical bigotry, we have among us diplomatised surgeons and physicians, who have thrown their certificates among their scraps as fragments of the bygone age, who look at the symbols on the jars of the windows, and the blood lamps over the doors, as the gaudy relics of superstition and murder, and while cruel and invidious remarks, nay insults, follow our God-like work of doing good, what the bigoted pedant has left undone, of attacking disease on the true philosophy of life, without wasting the vitals of humanity, and passing to the fell monster death the thousands of our consumption-smitten land. Yes, while thus engaged in lessening the sum of human woe, cheered by the thanks, the blessings, and prayers of a host of the recipients of this great boon Medical Botany, we can bear as light as air the gentlemanly epithets which the poison-dealers in turn call each other most deservingly, quack, from the German quicksilver, quacksilver being one of the chief sheet-anchors in the "Killing art." But we scout the idea as having no applicability to Medical Botany, and is found chiefly on the

lips of the most interested or illiterate, who are unable to distinguish right from wrong. The thinking classes of society have been inquiring who is the real quack. Is it the allopath, the homœopath, the hydropath, the kenisepath, the terrapath, the aerepath, the atmopath, the electropath, the mesmerist, the medical galvanist, or the Medical Botanist? To some this medical dissent bewilders, and well it may, for it proves, as in all the other legalised systems of delusion, whether political, theological, or medical, that the time is come for reform, and the division only betokens the emancipation of the human family from the unnatural doctor-ridden state in which thousands are found, and by which error is perpetuated. I will briefly name a case brought to my notice by a banker's lady from Chichester, shortly after I had opened this establishment, proving that Medical Botany must outlive its enemies, let them call it what they may. After expressing her pleasure at seeing its introduction into Brighton, which had, under God's blessing, done so much good, she relates the following:—"My daughter's case is proof sufficient. She had been rather unwell, and, as is customary, we sent to a neighbouring surgeon, who bled, and bled, and bled again, until she became perfectly helpless, having lost the use of the extremities, being cold, in which state she remained six years. During this time, of course, we had the attention of all the most eminent of the faculty, and in vain. From this deplorable condition, she was, to a miracle, restored by this system of medicine which some ignorantly call quackery, but my daughter says, If this is the way the public are treated by what is called the *faculty*, and by you, whom they call quacks, restored, then quackery for ever!" But we think the term ought to be reversed. Point us then no longer to beautiful Ireland as cursed with her theological priesthood: rather let us look at home and see the curse of our medical priesthood, and the fears of the people, lest they offend the family doctor. If one has left their souls with the priest, the other has done the same with their bodies. Thus the grand and simple laws of nature are mystified and outraged, and as long as it continues, *Britons* ever must be *slaves*, vassals to an unjust monopoly which no legal enactments can improve which do not emanate from the people. To say nothing of the history or mystery of medicine, which our space will not allow at present, it is certain, that among the so-called improvement of medical science, there are many sad departures from the safety of the ancients, whose remedies were from the vegetable kingdom alone, and it was then that Medical Botany contributed to the good old age, in comparison to which our days are but a span. Men have sought after inventions which destroy instead of save life, and there remains a sorrowful reflection on the *healing art*, when we see an increase of disease follow the daily *increase* of *medical men*, and this appalling fact demands serious enquiry, and must ultimately lead to the disuse of poisonous medicines both mineral and vegetable, which every genuine Medical Botanist *rejects* and *condemns*. Medical Botany is then nothing less than a *judicious selection* of the most valuable medicines from the vegetable kingdom, which can, with safety, be given to either young or old, without endangering life, and finding by practice that all curable diseases can be effectually treated without *poison*, we consider all those who use them, endangering the lives of the public *unnecessarily*.

In these remarks I have no desire to detract aught from the liberal, intelligent medical practitioners of the other schools, some of whom I love, having studied with them, and am to this day on terms of friendship; but I find amidst the most exalted and refined minds which college culture and hospital practice can develop, the numerous contradictions of medical authors bewilder, leaving a large portion of medical men without faith in what they administer: hence, when sick themselves, they call in another to prescribe. Thus it was with a Brighton doctor not long since, who, while on a visit at Hastings, had an attack of cholera, came home and refused to take medicine; said he would die first, he would neither prescribe for himself or allow another, he had no faith in it—and die he did.

Many apparently cogent arguments have been sophistically adduced in its favour. The bold and enterprising have strove honourably, and established hospitals and colleges, in which much good, as well as harm, has been done, and so far deserve respect; and had not proof been given of inefficiency, nay more, of death itself, been dealt from places reared to restore and save, we should have had less departures from these time-honoured institutions, and in all probability the divisions would have been unknown as separate sects of medical men. Hence Hahneman, the founder of homœopathy, started with his small doses of mineral and vegetable poisons, considering allopathy to be walking in darkness, and say he could not bear the thought of being the "murderer and tormentor of his brethren." With all the vaunted pretensions to superiority from the allopath, and its strong desire to prop its declining powers by brute force, by legal enactments, as all systems have done before whose intrinsic value could not support itself, the mind of the age in which we live demand advance in this science, as well as all others, by which its mysteries will be exploded, for it can no longer receive the dogma, "Open your mouth and shut your eyes, and take what the doctor sends ye." Oh, no! physic as well as food is better understood, and the gallipot Latin prescription bears too great a resemblance to the mountebank's tricks to gull any but the ignorant and unreflecting. I could but smile the other day at the discovery which an old gentleman had made touching this, which had induced his friends to laugh at him also. He was one of the good old sort, who thinks less about the house of his mind than he would the house to shelter his body, and feeling pain in the region of the kidneys went to Dr. K., who prescribed for him, and sent him to North-street for his medicine. He thought, "I have paid for my prescription pretty dearly; wonder if I could make out this; I know a bit of Latin." So he deciphered it—so much terebinth (turpentine) and so much aqua (water). "Oh!" says he, "this I'll mix myself; 'twill cost me but a penny, and save my half-a-crown."

In these remarks on Medical Botany I wish to be plainly understood, that a Medical Botanist is not an herbalist, although we supply the public with the articles of our pharmacopœia. A mere seller of herbs is not supposed to be competent to prescribe for bodies whose parts he is generally as ignorant of as the herbs he may collect. Such a person may by chance relieve in some simple cases, as the old wives of every village through this and every other land may do; while their mistakes, through ignorance and presumption, have hazarded the lives of those who have been foolish enough to consult them. It is certain, then, to all rational minds, that the remedies which are dangerous, and require the judgment of a Culpepper, or any allopath who may write an herbal book, is not less so in the hands of a novice. See Culpepper, 344 and 364, "Be not too busy with such medicines, lest you make a man sleep to doomsday. A learned art to spoil people; hundreds are bound to curse such, and those that appoint them."

Medical Botany is a *system* of medicine from the vegetable kingdom, with its pharmacopœia as other medical schools, and although in its infancy in this country, being introduced about sixteen years ago by Dr. COFFIN, of London, its saving usefulness has secured for itself a friend in every house where it has been fairly tried, and it must ultimately take its high position above all the other medical practitioners of the age. Do not think me too sanguine. Mark its nine colleges to advance it in America, and see its God-like good when administered to the sick. Its simple adaptation to the wants of man is such, that its perjured foes in America, and its malignant and false-sworn enemies of England, have perpetuated their names with lasting disgrace, and contributed to the furtherance of its truths ignorantly by opposing it. Read "COFFIN'S Refutation of Letheby's Falsehoods and Slanders on Medical Botany." Truth must prevail.

It has been lately admitted by some of the poison-dealers that this is the school of medicine to which they *must come*, for the *people* are *getting afraid*. The fact is, the most valuable of all vegetable preparations, of all the medical sects, is found in Medical Botany; therefore many ignorant, unprin-

cipled persons have assumed the name, and even gone so far in *imposture* as to hawk it from town to town with a pedler's box, like an old Jew with his spectacles, deceiving all who are blind. *Of such beware.*

Nor need we wonder, however desirous to see free trade in medicine as well as food, when we see the example set by the base impositions so boldly emblazoned through all the druggists' shops in the land, under the Government stamp, by which the vilest trash and deadliest pill, or soothing teething powders, are palmed on the unwary public, "by the special direction of Her Majesty's Honorable Commissioners'" stamp, and by which scarcely a chemist or druggist can be found who has not turned his shop into a dépôt for quack medicines; all responsibility being thrown on the "Government stamp." For it surely must be good, if it be "patent medicine," and does not kill immediately. Thus the Government winks at deception, and allows any ignorant pretender to be an impostor, provided he gets the extra three-halfpence for the "*stamp*," while its other laws inflict punishment on all impostors. He who pays for the license, or stamp, will be like the "legally qualified *allopath*," competent to fill the newspaper with advertisements of his or her "Universal Family Pills" or "Golden Solution," or to slip ye through the world easily, pass ye on to "*cod-liver oil*," or some other equally ridiculous and useless thing, with some *high-sounding names* appended, though they may be bought for the purpose. The reader will, I doubt not, see with me that medical reform is greatly needed, and while many difficulties present themselves, the recent parliamentary attempts appear in the wrong direction, not intended to inform and improve the people, but to treat them as a herd of thoughtless beings, whose houses of clay must be daubed with untempered mortar, or cleansed by any distressing or destroying medicament which may emanate from a monopolising class, who are earnestly seeking to elevate themselves by enslaving the people. This has created enquiry and disgust, and while homœopathy, hydropathy, &c., have struck out a new and improved circle of action, a great multitude, which no man can number, have embraced "Medical Botany," and are looking at recent measures adopted by allopathy with dissatisfaction, and giving satisfactory reasons for its rejection. A few of them may be named:—

1. Not till mental capacity can be bought and bestowed upon favourites, do we consider colleges or governments at liberty to restrict the useful employment of natural gifts for the healing of men's bodies.

2. If any restriction be made, it should be on those who employ killing drugs under pretence of killing disease, and by which too many kill their patients.

3. As the law tolerates doctors of divinity of every persuasion, and grants licenses to dissenters of every faith, allowing the people their choice in the exercise of thought and reading, although the teachings of one may condemn to eternal death the faith of the other, we ask, on what grounds, except that of impudence, can any doctor of physic reverse this toleration, and exclude all but one faith and practice.

4. What established the Reform Church but the protest of the people against errors crept into Christianity? and the parliament heard the voice of the people—*Vox populi vox Dei.* Let medical reform emanate from the same source, it is legion. Then let it proceed and listen not to the idiotic claims of an arrogant medical priesthood, who have already commenced a crusade on the liberties of the people, Compulsory Vaccination to wit.

5. To prove the superiority of native genius and the advantage of encouraging its culture (without legal imposition), look at the most highly distinguished characters of this or any other age, in the army, navy, church, law, chemistry or physic—and they have nearly all risen from NATIVE TALENT, and the two greatest in medicine most adapted to lessen the sufferings of humanity (being within the reach of all), we believe to have originated in hydropathy and Medical Botany, which in many cases can be combined according to the experience of the practitioner, and by whom all poisonous drugs are rejected.

T. W. STOWELL, M.B.
Brighton Botanic Dispensary.

STATISTICS OF MEDICAL BOTANY.—REGISTER SHEET.

(*Continued from page* 35.)

Name and Residence.	*Age.*	*Ailments.*	*Previous Medical Attendants.*	*When came under Bot. Treat.*	*Present state of Health.*
Miss Wood, Gardner-street, Brighton.	13	General decline.	A surgeon.	September 12th, 1854.	Very good.

GENERAL REMARKS.—This patient was too weak to be able to walk or sit up, and had to be carried like an infant from the bed to sofa, her parents expecting to bury her before they left for America; but, to their joy, she recovered, getting better from the first day she took the medicine I prescribed for her—went with them across the Atlantic—and recently I have received from them the statement of her excellent health.

Mr. J. W. Bartholomews, Brighton.		Inactive liver and general prostration.	Allopathy, homœopathy and others, in vain.	March 23rd, 1855.	Not suffered from it since.

GENERAL REMARKS.—This treatment was as a last resource, for some had said it was consumption, and others variously guessed and as ignorantly prescribed.

Mr. M., Lavender-street.	19	Epilepsy and general giddiness.	A surgeon.	May 19th, 1855.	Quite well, has had no fit since.
H. N. Schofield, Grafton-street.	17	Twelve years a stammerer, with nervous debility.	Various.	May 9th, 1855.	When last seen could read as distinctly as I could, and strong.

GENERAL REMARKS.—Another case, proving that booked accounts with some are poor things to pay the honest demands of merchants.

Mrs. Edward Shelling, 6, Portland-street East.	48	Bronchitis.	Various surgeons and physicians of this town, &c.	June 8th, 1855.	So good that a lease may be taken on it safely.

GENERAL REMARKS.—This lady is now one of my warmest advocates from gratitude, always admitting that by this treatment she has received the greatest amount of good. The most expensive and noted of Brighton doctors had examined her, and actually frightened her by falsely alarming her that one of her lungs was gone, and the other fast going—that she must wrap up closely, as a fresh cold might cause her to drop dead in the streets, which caused her to put on extra wrapping—and the tale to her friends depressed all, expecting her to die. The alarm suggested a consultation with Dr. Hastings, of London, about the time I came from town to Brighton, and to have the opinion of two strangers on this case. She consulted me, and found Dr. H.'s examination agreeing with mine, that both lungs were *quite sound:* she placed herself under my care, and is now recommending Medical Botany to everybody.

Richard Goringe, Robert-street.	78	Stone in the bladder.	Various surgeons of note.	July 22nd, 1855.	Able to be about and work a little, better than for years.

GENERAL REMARKS.—This poor old man passed an operation for calculus, or stone in the bladder, in 1844, at the Brighton Hospital—was there about six months, and his sufferings too great to be uttered. Since his entry on my free list for the poor he has passed large quantities of red sand, stone and gravel, which passing have at times, from their size, lacerated the urethra. His general exclamation is, "Oh that I had known something of you, sir, or this system, before; then I should have been saved my pain and property, which, through affliction, went from me."

Mrs. R., Whitecross-street.		Prolapsus uteri et ani, with bloody discharges.	Surgeons.	August 15th, 1855.	Better than she ever expected, having now no particular cause to complain.

GENERAL REMARKS.—This person had given up all hope of ever being better, and is thoroughly convinced that broughams do not always carry doctors.

Master Snelling, New-road.	8	Gravel, with distressing bloody urine, from daily urethral lacerations.	Allopathic dispensary.	August 22nd, 1855.	Pretty well.

GENERAL REMARKS.—Was about to undergo an operation when recommended to this establishment.

Mr. Thompson, 10, Belmont-street.	23	Acute inflammation of the lungs.	Physician and surgeon.	August 25th, 1855.	Very well.

GENERAL REMARKS.—This was a relapse which nearly cost him his life, being lowered by allopathic torture.

Mr. I. Fitch, senior, Princes-place.		English cholera in its last stage.	None.	August 30th, 1855.	Middling.

GENERAL REMARKS.—His age, attended with spasmodic asthma, and his trade against him, hinders his health being established, though better than for years past.

Mrs. B., 48, New York-street.	33	Blind piles and uterine hemorrhage.	Various surgeons.	September 24th, 1855.	Good.

GENERAL REMARKS.—For some hours it was uncertain how this case would terminate, and all the family had taken their leave of her: the absent mind—the eye fixed as in death, and the cold, clammy indication of the last—as though the tide of life had departed, but was restored by the equalising internal and external stimulants of the vegetable kingdom, and vapour-baths—so that in a few weeks, on her return from the country to which I had advised, I did not know her.

Mr. Cousins, Belmont-street.	22	Shingles round the body.	None.	September 27th, 1855.	Very good. This young man was alarmed, but soon got well.
Mr. Rhodes' boy, 9, White-cross-street.	4	Calculus, or stone in the bladder.	Two surgeons and a physician.	November 4th, 1855.	Never better.

GENERAL REMARKS.—This child had been ordered by its previous medical attendants to the hospital for an operation, his mother having previously objected to bring him to this establishment; but fearing the use of the knife, sent when the poor little fellow was exhausted with agony; and the application was not in vain, as his parents will gladly testify.

Mrs. Page, Company's Offices, Church-street.	66	Lockjaw and ticdoloreux.	Several surgeons and chemists.	November 5th, 1855.	Quite well.

GENERAL REMARKS.—The pitiable condition of this aged woman was calculated to urge all the means of allopathy, which were in vain, and is another proof of the triumphs of our simple and safe remedies. Can she ever forget it?

Mr. Hopkins, 24, Spring-gardens.		Bakers' psora on the hands.	Various.	November 14th, 1855.	Excellent.

GENERAL REMARKS.—This case was one of years' standing—a source of great annoyance, hindrance to business, and pain.

Robert Roberts, 24, White-cross-street.	11	Rheumatic fever.	Parish surgeon.	December 20th, 1855.	Good—quite well ever since.

GENERAL REMARKS.—This youth was sinking fast—his legs cold and rigid, as helpless as an infant, and partially deranged. The quackish treatment he received nearly put him beyond human help. The common sense question of the anxious father to save his dying son was treated with haughty scorn by the law-made doctor, and so left. The poor but honest man was out of work, and therefore dumb; but not inactive to do what could be done, he came, and ever pleased to say, by it his son was saved.

Mr. Pickles' child, 29, London-street.	2	Inflammation of the lungs, and ureters obstructed.	Allopathic physician.	December 21st, 1855.	Cannot be better.

GENERAL REMARKS.—Before I was called in the other physician was dismissed, the child having got worse daily under his care. The agonies and screaming, day and night—loss of flesh, no appetite, and almost choked—caused the mother to weep over her only little son, assured, by all who saw him, that he must die; and, in addition to the rest, what could be done more or better than Dr. K. could do? In fact, it was difficult to get my instructions obeyed, her faith in all remedies had departed; and surely if Dr. — did not know what was the matter, how was it possible that I could know, who use only herbs. The opinion is now altered, and the dear little fellow is a picture worthy a mother's love.

T. W. STOWELL, M.B.,
Botanic Dispensary, Church-street, Brighton.

VARIETIES.

A Happy Marriage.—It is a glorious sight to see two old people who have weathered the storms and basked in the sunshine of life together, go hand in hand, loving and truthfully, down the gentle declivity of time, with no anger, no jealousies, no hatreds gathered up against each other, and looking with hope and joy to the everlasting youth of heaven, where the two shall be one for ever. This is a true marriage, for it is the marriage of the spirit with spirit. Their love is woven into a woof of gold, that neither time nor eternity can sever.

Women Doctors.—The Female Medical College in Pennsylvania is located in Philadelphia. The college is prosperous and thriving, and the number of students on the increase. Of these latter we find a list covering two pages, and footing up two hundred names or thereabout. It sounds odd to read of Doctors Anne, and Lydia, and Hannah, and Mary, and so on; but we dare say they understand their business, and would make the scoffers laugh on the wrong side of their mouths if they had them in a dissecting-room. Among the faculty we notice an M.D. and Professor of Physiology, whose name is Ann; and a Professor of Anatomy, with the delicious romantic name of Emmeline.—*New York Herald.*

Discontent.—Some people are never content with their lot, let what will happen. Clouds and darkness are over their heads, alike whether it rain or shine. To them every incident is an accident, and every accident a calamity. Even when they have their own way, they like it no better than your way, and, indeed, consider their most voluntary acts as matters of compulsion. A child about three years old was crying because his mother had shut the parlour door. "Poor thing," said a neighbour compassionately, "you have shut the child out." "It's all the same to him," said the mother; "he would cry if I called him in and then shut the door. It's a peculiarity of that boy, that if he is left rather suddenly on either side of a door, he considers himself shut out, and rebels accordingly." There are older children who take the same view of things.

Discovery of Natural Gas at Hull.—On the 28th ult., Mr. Stather, of the firm of Thompson and Stather, civil engineers, Hull, was sinking a well at his private residence and works. At forty-five to forty-eight feet the workmen found a bed of peat, three feet thick. As the water issued from the surface of the boring in a bubbling fountain, varying in height from one to six or seven feet, and from that to ten feet, spurting out volumes of gravel and fine sand, the sinker, who had, in sinking other wells, previously seen something of the kind, though on a smaller scale, being certain that this was occasioned, not by the force of water, but by gas of some kind, determined to try whether it was inflammable, a thing which he had never in his life attempted before, and to his surprise there arose a lurid flame, two yards in height, issuing from a tube three inches in diameter, and through which tube the water continued to flow and boil over without at all diminishing the volume of flame, which ascended considerably higher than the garden-wall, which is seven feet high. The next day some scientific gentlemen visited the place, and the gas was found to be pure gas. As much of it had escaped during the night as would have lit up all Hull. This gas is the true fire-damp, which recently proved so fatal at Lundhill, and has frequently done so in many collieries. The water obtained at the same level as the gas was of a very soft quality, and would be good for washing purposes. On Wednesday evening twenty-one burners were supplied with gas from the boring in the well, without the intervention of any gasometer. Since then the boring has been carried down to the solid rock, which was found at a depth of fifty feet, and the supply of gas has for the present ceased.

NOTICES.

Dr. Coffin may be consulte gratis, as usual, every Saturday evening, from four to eight o'clock, at the Botanic Establishment, No. 24, Union-street, East, Spitalfields. *Patients not admitted to the waiting-room after eight o'clock.*

Dr. Coffin may also be consulted at his residence, 24, Montague Place, Russell-square, daily *(Sundays excepted)*, from one to two o'clock (fee one guinea), on any day except Monday, on which day the fee will be five shillings only.

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COFFIN'S
BOTANICAL JOURNAL
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MEDICAL REFORMER.

"Human experience, which is constantly contradicting theory, is the great test of truth."—Dr. Johnson.

No. 245—Vol. VIII. SATURDAY, OCTOBER 3, 1857. Price 1d.

THE SESSION.

The session just passsed has been abortive of medical legislation. The vaccination question is disposed of until next session, when a committee of inquiry is to be appointed. The three (so called) Medical Reform Bills were withdrawn. The Poisons Bill has been modified to meet objections, and is deferred until next session. Lobelia and patent medicines are to be exempt from its operation, as concessions to Medical Botanists and others. This Bill needs further revision and the extension of exemption to homœopathic preparations. The Medical and Surgical Sciences Bill (Ireland), which aimed at saddling some localities with the expense of hospitals, and lecture and dissection rooms, doubtless with the intent "to amend and extend" the provisions of the measure at a convenient opportunity, has been defeated; and the Board of Health Bill was cut down to a simple continuance Bill: thus the Board of Health has been once more signally defeated in various attempts at jobbery. The contest will be renewed next session, when it is to be hoped that the cause of medical freedom and common sense will finally triumph. Many thanks are due to Messrs. Coningham and Grogan, and pre-eminently to Mr. T. S. Duncombe, for their able, disinterested, and effective services. We would add our expressions of regret, that Dr. Michell, the late worthy, enlightened, and uncompromising member for Bodmin, was not in the house to aid, as before, in the contest, and to share in the triumph.

PERILS BY THE WAY.

(Concluded from page 40.)

Has the reader ever seen a gallant vessel upon the rocks, exposed to the merciless rage of the mighty elements, and battered by the rude breakers, until the relics of her former greatness were scattered upon the troubled waters and cast upon the neighbouring shore? Thus complete was the reck of all Edwin's earthly hopes. Without entering minutely into all the events which marked the latter stages of this sad history, the record of which would be truly distressing, let us proceed at once to the closing scene. It is laid in a wretched apartment, the darkness of which is scarcely relieved by that dim taper whose feeble light discloses so imperfectly a female form bending over one who is stretched upon a miserable bed. There lies the victim of intemperance—the shadow of a once fine, athletic man. His race is almost run. The hour is at hand when he must meet his God. He has wasted his substance, blasted his reputation, ruined his family, and cut short his days.

The fearful audit is about to take place, and his prospects are tremendous! At one time he suffers all the horrors of "delirium tremens;" his gestures are frightful in the extreme, and his language a mixture of terror and blasphemy. Anon he returns to a state of consciousness, and looks upon that faithful watcher beside him—that true personification of quenchless love and hopeless grief. Hark! he speaks in a sepulchral tone: "Emily, dear Emily, you are very kind in not

upbraiding me with the past; but memory and conscience are too busy to allow me to forget how deeply I have injured you and the dear children. How bright were those never-to-be-forgotten days of domestic bliss and social enjoyment and religious privilege, when the sunshine of affection, like a golden cloud, abode upon our peaceful dwelling!—when the voice of friendship, like sweetest music, made us forget those harsh sounds which grate upon the ear amid the turmoil of life, and when our holy services were as—

'A young heaven on earthly ground,
And glory in the bud!'

How bitter the reflection that these have been sacrificed to a morbid appetite! But the mischief is irreparable. I cannot undo what, alas! I have done; repentance is too late; my sands are almost out. For you, dear Emily, there remains a dark and desolate future; for me, a drunkard's grave, and—oh! beyond it—" Here one of those fearful paroxysms peculiar to the disease interrupted him. How terrible is that mania induced by intemperance! After a lengthened season of severe suffering, attended with fearful distortions and wild ravings, consciousness once more returned, and he again looked upon his sorrowing companion. Seeing her weep, he said, "My removal will not be a calamity. You must not regard it as such, for I have lived only to make you suffer. Oh, that I might commend you to God! but having shown myself his enemy, I dare not look to his throne. This is a sore trial. But you have been faithful, and may lean upon the promises."

"Yes, dear, I do and will lean upon them, for they are my only support in this sad extremity; and my authority for so doing is found only in the blood and righteousness of our precious Saviour. We must confess that there is much in the past over which we have great reason to mourn and afflict our souls; and we must not forget that 'the sacrifices of God are a broken spirit; a broken and a contrite heart, O God, thou wilt not despise.' Conscious guilt should drive us *to* him, not *from* him."

"You always were a comforter, dear heart, and had I faith, such words would prove a solace to my oppressed and tortured soul; but unbelief excludes all consolation, and for me there is nothing left but absolute despair." The latter part of this sentence was accompanied by an expression of countenance and a groan which wrung the heart of Emily. After a few moments' pause she somewhat recovered, and proceeded with her difficult and painful task.

"Your despairing state, dear Edwin, has made me very sad; but an encouraging thought has just occurred to me. It is this—the darkest season immediately precedes the spring of day. 'Weeping may endure for a night, but joy cometh in the morning.' I cannot consent to your despondency. My full conviction is, that mercy's door stands open wide, and that 'all manner of sin and blasphemy shall be forgiven unto men;' that He who ne'er was known to deny his aid to the guilty and helpless is waiting to be gracious; and that—

'No mortal has a just pretence
To perish in despair.'"

How touching was the scene! The dying man was greatly moved. His quivering lips and clapsed hands told of the agony of his struggling spirit, now trembling on the threshold of an unseen world. But those precious words, "Waiting to be gracious," although so familiar to his mind, seemed, as they fell from the lips of his sorrow-stricken Emily, to be invested with new force and beauty, and were as a ray of light from the throne of God, piercing the dense darkness—the midnight of his soul. As the first glimpse of a distant sail to the shipwrecked mariner, such was the manifestation of that blessed truth to the agitated mind of Edwin. It was attended by the inspiration of hope. And who shall describe Emily's joy when she saw that sad expression of settled gloom which had rested upon the death-like countenance of her ruined husband relax into a peaceful smile? "Yes, he *does* 'wait that he may be gracious,' even to a traitor; I know it," said the sinking man; "I feel that he is gracious—

'Myself into his arms I cast;
He saves my guilty soul at last!'"

That gleam of heavenly sunshine!—was it an indication of the unfolding of "the everlasting doors?" for it came

only in time to gild the last few moments of consciousness—to relieve the bitter pang of separation, and cheer the sorrowful heart of that lonely sufferer, watching besides the bed of death.

The excitement and effort had proved too much for exhausted nature; a relapse brought on the crisis, and cut off all further intercourse; for

> "Disease prevailed,
> And reason fled. The maniac strove with death,
> And grappled like a fiend with shrieks and cries,
> Till darkness smote his eye-balls, and thick ice
> Closed in around his heart-strings."

What a startling picture have we here of the horrors of the drinking system as sanctioned by professing Christians! A thriving man crushed in the face of prospects the most cheering; a strong man cut off in the midst of his days; a church member of long standing disgraced before the eyes of the world; a happy family plunged into the deepest poverty and wretchedness! Nor is this a solitary instance. Such cases are constantly occurring—they multiply on every hand. Strong drink! Thou accursed thing! How many bright hopes have been extinguished by thine insidious influence! how many brilliant intellects hast thou shattered! how many loving hearts hast thou broken! how many rivers of briny tears hast thou caused to flow! how many kind fathers have been by thee converted into monsters! how many tender mothers hast thou brought to a premature grave! how many noble, generous sons have been lured by thee to their ruin! how many fair daughters hast thou degraded and destroyed! what myriads of precious souls hast thou hurried into the dark, deep gulf of interminable misery! Thou art indeed a deadly enemy. Truly hast thou been called "mocker," "serpent," and "adder." And shall those who love their God and their fellow-men caress thee? Shall *they* close their eyes against thy fearful doings and help on thy work of slaughter and desolation? Heaven forbid!—Brethren, it is "high time to awake out of sleep." A fell monster, a gigantic evil is abroad in the earth; the young, the inexperienced, and the weak claim your sympathy, your protection, and your help. A fiery torrent is rushing among the masses of the people, and you are required by the influence of example, the force of truth, and the power of prayer, to drive back that torrent, and prevent the wide-spreading ruin. Hark! do you hear that bitter wail now floating on the breeze? 'Tis an appeal from wretched mothers and their helpless innocents, who are being wronged and murdered by intemperance. See! hundreds of thousands of victims from every grade, moving in one long and sad procession, scathed and blighted by this relentless foe, and sinking into a premature grave. Brethren, there is a simple and effectual remedy—'tis found in total abstinence. Observation, experience, and the deductions of science, have abundantly proved its safety and sufficiency. Tens of thousands who were once degraded almost beyond hope, have used the pledge as a stepping-stone to respectability and comfort, and in very many instances to vital and saving religion. In this "labour of love" we greatly need the hearty co-operation and support of the ministers and members of the Christian churches. And to whom are we to look, if not to those who professedly "sigh and cry for the abominations committed in the land?" Is it true that the souls destroyed by the drinking usages of society exceed in number those saved by the combined efforts of the churches? How then can Christians who pray, "Thy kingdom come," lend their sanction and influence to those ensnaring and ruinous practices? Brethren, we entreat you to come up "to the help of the Lord, to the help of the Lord against the mighty."

THE WORTH OF FRESH AIR.

(Concluded from page 63.)

A FEW years ago, a vessel started from Cork in Ireland, to take a large number of emigrants to a ship just about to sail from Liverpool. A violent storm sprang up in the night, as the vessel was crossing the Irish Channel, and the captain, fearing that the alarmed passengers would interfere with the sailors, and render it difficult to work the ship, sent them all below into the hold, and covered them closely down with the hatches. The imprisoned

passengers soon found that they were suffocating, and called and knocked loudly for help, but their cries either were unheard or disregarded. In the morning the hatches were removed, and to the horror of the captain and his crew, the hold was found half full of dead bodies and dying people, instead of containing living men and women. Such are the fearful consequences which follow, when human beings are forced to breathe the same air over and over again.

You are very much shocked, both at the savage cruelty of the Indian tyrant, and at the carelessness and ignorance of the Irish captain. But what will you think of yourself if I now show that you do, in a small degree, every night, what they did on so large a scale? What was it that caused the closeness of this room before we opened the window? It was the presence of precisely the same kind of poison, as that which killed the prisoners at Calcutta, and the passengers in the hold of the ship. That poison did not destroy you in a single night, only because it had not gathered in sufficient strength to do so. Your room was not more than half as large as the Black Hole of Calcutta, but there were only two of you shut up in it instead of 146. The air of your room was merely hurtful instead of being deadly. But the fact still remains. When you rose in the morning, that air was not fit for a human creature to breathe.

When you rise to-morrow morning, just go out of doors for five minutes, and observe carefully the freshness of the air. That air is in the state in which God keeps it for breathing. Then come back suddenly into your close room, and your own senses will at once make you feel how very far the air of your chamber is from being in the same wholesome and serviceable condition.

This is one way, then, in which people produce derangement in their bodies, and cause their works, or organs, to get choked up and clogged. They are not careful always to keep fresh air immediately around them. They suffocate themselves slowly; taking, perhaps, a long time to complete their task, but, nevertheless, accomplishing it none the less surely. Individuals who dwell in crowded towns, and, therefore, have to live by day, as well as by night, in close, impure apartments, go down to their graves, even before they have reached their prime; and their thin, pale faces, dull, sunk eyes, and languid movements, tell they are doing so, with painful clearness. It is well known that people who dwell in towns and work in close rooms, as a rule, die seventeen years earlier than men who dwell in the country, and work in the fields by day.

Country folks escape this severe penalty, because even when they half smother themselves by night, the thoroughly fresh air in which they spend the day goes a great way towards the correction of the mischief. Still they are by no means free from all penalty. You yourself have suffered from breathing bad air. Do you remember last autumn, when I came to see you sick in bed with the fever? Do you recollect how your limbs ached, and your skin burned then, and how you tossed restlessly from side to side, without being able to sleep, your mouth and tongue being brown and parched with a dryness which water could not moisten? You could not raise your head from the pillow; and once when I asked you how you felt, you answered me by telling me something about the corn-stacks and the last harvest, being quite unconscious of what you were saying. What do you think was the matter with you then? Your body and blood were full of poison-vapour. And what do think had made them so? Why fresh air had not done its work of purification as it ought. You had been breathing a great deal of impure air, and were paying the penalty for having done so. If you could have seen the prisoners in the Black Hole of Calcutta an hour or two before they died, you would have found them in exactly the same state.

The term "fever" is taken from a Latin word which signifies "to burn." The skin and the body feel burning hot in fever, because impure, poisonous blood is flowing everywhere through their vessels, in the place of pure blood, and the blood is poisonous because it has not been freed from its poison-vapours as fast as they have been bred in, or comunicated to, its streams. In the worst forms of

fever the blood gets so impure that it steams out, through the breath, vapours which are able to produce the same kind of disease in other people, and which are, under these circumstances, termed infection. The infectious poison-vapours of fever get so strong when they are received into close rooms, and are not allowed to be blown away, that they often kill persons who breathe them in that state, very quickly.

But you now want me to explain how all the mischief, which results from breathing foul air, may be prevented. Come down with me into the garden, and creatures that you believe to be of far inferior powers to yourself shall give you a lesson.

You keep bees. Here is a hive, I see crowded with the busy insects. By the numbers that I observe clustering about the low, arched door, and bnstling out and in so incessantly, I learn that the industrious little fellows must be very closely packed together in their straw house. There must be many thousands of them dwelling together in a space that cannot, at the most, equal more than a couple of square feet; and there is not a single window in the straw wall; no opening of any kind but the low, and half-choked entrance. Really if those bees need to breathe, you who have furnished them with their dwelling must be nearly as bad as the cruel Nabob, who shut up his prisoners in the Indian Black Hole!

Those bees certainly do need to breathe every bit as much as men and women; and what is more, they manage to breathe ten times better than you do at night. Notwithstanding all the crowding there is within their close dwelling, the air never gets there into the poisonous state in which the air of your sleeping-room is by the morning. The bees take care that it shall not do so. Just bend down your ear and listen near the hive for a minute. Do you hear that incessant low humming? That is the bees hard at work making an artificial wind. It is the sound of a couple of score of broad, stiff fans, flapping to and fro with great rapidity. Look, I drop this piece of light thistle-down near the door of the hive, and you see it is at once blown away from it by a steady draught. If you could see through the straw walls, you would discern twenty little sturdy fellows holding on to the floor of the hive with their feet, just within the door, and flapping their wings backwards and forwards without a moment's pause. Now and then one or two tired insects drop out from the line of the fanners, but their places are immediately filled by fresh recruits, who lay hold of the floor and fall vigorously to work with their wings. This is the appointed band of air-purifiers, plying their business for the good of the entire community, and wafting a fresh breeze coutinuously through the hive. The bees take it by turns to carry on this necessary labour, and some of them are always at it. The humming caused by the rapid vibrations of their fans, scarcely ever ceases. It has been ascertained that air taken from the inside of a crowded hive, is quite as pure as the fresh air that floats in the open space around; so perfectly do these little earnest workmen accomplish their purifying task.

The industrious bees, then, are an example to mankind. If people dwell in close rooms, they must cause an artificial breeze of fresh air to blow through them. Having shut out the great wind, that it may not chill too much by its uncontrollable currents, they must introduce such a little wind as they can keep thoroughly under control, but which nevertheless is sufficient to perform the office of purification as far as it is required. This process of causing an artificial wind to blow through the inside of a dwelling is called ventilation, from a Latin word which signifies "to blow" or fan with the wind.

In very hot climates where dwellings need to be ventilated for the sake of coolness, as well as for purification, men follow precisely the example set by the bees. They hang up broad and stiff canvass fans, which they call punkas, near the ceiling, and cause these to flap backwards and forwards constantly, by pulling them to and fro with ropes. In more temperate climates, it is rarely found necessary to take all this trouble, for the air readily makes currents of its own accord inside of rooms, if only allowed to do so. All that is necessary is the furnishing a free passage into the room,

and a free passage out, and it will then make a clear march through. One opening will not do, when fans are not kept going, because then the entering and departing air would meet face to face and obstruct each other. There must be "in" and "out" doors, just as one sees in much-frequented offices and banks, in great towns.

A very effectual plan for securing the ventilation of a dwelling-room consists in carrying a pipe of perforated zinc across the house, from outside wall to outside wall, just beneath the ceiling, allowing the ends to pass through the walls quite into the open air; then whichever end of the pipe chances to be most towards the quarter of the heavens from which the wind is blowing, should be closed with a plug, a free passage being left for the escape of the heated air through the opposite end. A number of holes should also be made through the door, near its bottom, until altogether they afford as much room to passing air as the inside bore of the zinc pipe. If you cannot manage to fix such a zinc pipe across the ceiling, why take out one or two of the panes of the window, and put into their place, plates of what is called perforated zinc (zinc plates pierced full of holes), such as you may buy for a trifle at any ironmongers. That is the next best thing you can do.

As soon as some arrangement of this kind has been completed, you will find that the air begins to move gently through the room, cold fresh air coming in through the holes in the door, and warm impure air being pressed out before it through the perforated zinc tubes or plates. This takes place partly because the external wind rushes, in its hasty way, against the openings through which the air is intended to enter, and forces itself in; but also, and more particularly, because the inside air gets warmer than the outside, and is then compelled to shift its quarters on that account.

The air contained inside of inhabited rooms gets warmed by the bodies and breaths of the persons living there. Then it is lighter, bulk for bulk, than the colder air outside, for warmth stretches and lightens everything. But as heavy things fall or press down to the earth more strongly than light ones, the cold air always squeezes into the room through the lower openings, and pushes the warm, impure air out before it, through the upper ones.

When you light a fire in your room during cold weather, it makes a quick and strong draught through the room, for the same reason. Fires, indeed, are among the most powerful ventilators that can be brought into play. Let your fire out, and go on sitting in the room with two or three of your neighbours, and you will find the air of the room will be close and foul in half-an-hour, although it was quit fresh before. While the fire is burning, the chimney takes upon itself the office of the holes in the zinc tube or zinc plate fixed in the window, and the heated air of the room is pushed up through it by the fresh cold air which rushes in through all other openings and crevices. It is only in rooms where no fires are burning—as, for instance, in your sleeping-room—that holes through the walls and windows can serve as outlets for impure air.

But if you live with several companions, in small rooms, as some workpeople are compelled to do by their occupation, those rooms cannot get properly ventilated, even although fires are burning. Some of the poison-vapours, poured out from your living bodies with the breath, are so light that they are at once driven up to the top of the room, and collect there gradually, spreading lower and lower as they become more abundant. They cannot get out through holes made in the walls or windows, because, as we have seen, the fire causes streams of cold air to press in there.

Dr. Arnott has, however, contrived a plan to ensure perfect ventilation even in small and crowded rooms, provided fires be burning. This plan consists in making an opening into the inside of the chimney, near to the ceiling, and fixing a balanced valve in it in such a way that the valve-plate is opened by outward draughts, but immediately closed by inward ones. Then the impure vapours lurking near the ceiling are continually being swept away into the current of the chimney through this valve.*

* A very perfect circular ventilating valve is sold by Messrs. Bailey, 272, Holborn, ready to

You are sure you have no money to spare to buy valves, and zinc tubes and plates, or to pay to workmen for making holes in your walls, and in your doors and windows. I admit that properly these trifling things should be done at the expense of the landlord to whom the house belongs. It should be as much his duty to make a house fit to live in, so far as due ventilation is concerned, as it is to keep it dry by covering it with a roof of tiles or slate. As landlords, however, are commonly themselves ignorant about these matters, you must learn to look to the affair for yourself. You will be the sufferer if the right thing be not done; therefore it is alike your interest and your duty to see that it is done.

Suppose then that you have a hard landlord who will do nothing for you, and that you are so poor you cannot spare a shilling or two for the purchase of metal tubes or plates. Then I will tell you what I would do, if I were in your shoes. I would borrow a large gimlet of the carpenter, and I would bore a row of holes through the upper part of the window-frame in my bedroom, just above the glass, sloping them downwards a little, so that the rain may not be able to run in; next I would never quite shut the door of the chamber, and I would bore other holes through the frames of the windows down stairs, to act as channels of inlet. A few rough pegs of wood would serve to close some of the holes, if at any time too much air entered the room in consequence of a strong wind blowing outside. This is what I would do rather than I would submit to be poisoned at night, because I was poor.

A single round hole, a little more than half an inch across, would allow as much air to pass through it, as would be sufficient to supply the breathing of one person, provided the air were driven along by the movements of a fan, or by other mechanical contrivance, with the force of a very gentle breeze. Generally, however, it does not move so fast as this through rooms, when only caused to do so by the greater pressure of external colder air. It is, therefore, better that the ventilating openings, both for inlet and departure, should altogether make up much more than a hole half an inch across.

It is not possible to have too much fresh air in a room, provided only an uncomfortable and chilling draught is not allowed to blow upon the body of the inhabitant. You may easily prevent any discomfort or mischief from draught, even where a great abundance of air is admitted, by hanging a curtain to catch it and turn it aside. You will find, however, that there is very little chance of any troublesome draught when no fire is burning in the room, to make the air rush in with increased power, for it is fires, as you will remember, which cause quick and strong currents.

The warmer and stiller the external air is, the more difficult it becomes to secure free ventilation through the inside of rooms. In the calm, hot nights of summer, the windows of sleeping-rooms should on this account be left partly open all night long. It is better to breathe air moistened with night dew than it is to breathe air laden with poison-vapours.

But if it be important when people are well that they shall have an abundance of fresh air moving through their dwellings, it is of far greater consequence that there shall be a thorough ventilation kept up in rooms where there is sickness. In all kinds of fevers the blood is overloaded with poison-vapours, and these cannot get out of the body unless they are blown away by pure air. The sick person cannot be freed from the poison-

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be fixed to the chimney-shaft, for 7s. 6d. It should be understood, however, that in order that this valve may work correctly, it is necessary for the throat of the chimney, just over the fireplace, to be contracted. If there be a *very large* draught into the chimney over and through the fire, there will be a tendency to a downward current through the valve, to help to supply the inordinate demand below. When the ventilating valves fail, and smoke falls back from the chimney through them, it is commonly because this has not been attended to. The entrance to the chimney-shaft should be narrowed over the fire, until a square hole, only about four or five inches wide, is left for the passage of the smoke and hot air; and then a low arch should be fixed, as a sort of blower, over the top bar of the grate, to quicken and steady the draught. When this arrangement has been properly made, it will be found that the fresh air which enters the room, escapes by two streams into the chimney, a part passing over the fire, and another part flowing steadily and continuously through the valve.

vapours that are clogging up his vital organs until fresh air is supplied abundantly. Do you remember what it was that first made you better, when you had the fever last year? Can you not recal to mind how all the doors and windows of your room were kept constantly open, and how angry I was whenever I came to your chamber and found them fast closed? Have you forgotten how delicious the fresh air felt to your parched and poisoned frame, and what luxury there was in the clean linen when supplied to your body and to the bed, and in the cold water when it was sponged over your skin?

If ever you are called upon to attend a neighbour or relation who has to suffer from infectious fever, as you then did, be sure you furnish to that sick person the same comfort and alleviation which were provided for yourself. Let this be your

Plan for nursing the sick.—Open wide the doors and windows of the chamber. Keep the body of the patient and the room very clean. Change the linen both of the person and the bed very often. Allow only the very simplest kinds of food and drink to be given, and that in small quantities at a time. Prevent all noise and confusion around the bed. There are very few persons indeed who will not recover speedily from attacks of even the worst kinds of fever, if this simple and prudent plan of treatment is steadily pursued.

The poison-vapours of fever and other infectious diseases are very deadly when in their greatest strength, but remain so for a very short time when left to the influences and operations of nature. They cannot bear the presence of fresh air. If they are mixed with a great abundance of it as they come out of the mouths of sick people, they directly cease to be dangerous poisons. All that is necessary to prevent infectious fevers from being communicated from person to person, by means of the breath, is to take care that fresh air is continually passing through the sick room. Attendants and visitors may remain with perfect safety in rooms where even the worst kinds of fever are prevailing, if they keep all the doors and windows of the chamber open, and are careful not to catch the breath of the patients until it has passed through some two yards of space, where there is perfectly pure air.

Such then is the "worth of fresh air." It keeps the body healthy and strong. It blows away and destroys the invisible and dangerous poisons which are steamed forth from putrid and decaying matters, and which are to the delicate organs of the living frame, much worse than dust and dirt are to clockwork. In disease it is nature's chief remedy; the best medicine of the best Physician, furnished gratis, because he is full of bounty, as well as of great skill. Never let it any longer be a reproach to you, that you ungraciously turn away such a precious gift and priceless boon from your doors. Rather fling wide your windows, as well as your doors, and welcome it to your heart. Go to the bee, consider its ways, and be wise!

THE VALUE OF GOOD FOOD.

(Continued from page 66.)

Rye-bread is not so pleasant in flavour as wheaten bread, but it is about equal to it in nourishment, and can be kept for months without being spoiled, which wheaten bread cannot. Oatmeal cannot be fermented like wheaten meal, but it is nearly as rich again in flesh-making substance. It is its very richness in this gluey material, which renders it incapable of being made into light bread. Scotch men and women consume a great quantity of oatmeal as porridge and unfermented cake, and get both very fat and strong upon their food. This article of diet has, indeed, the recommendation of being very appropriate for young people, who are growing rapidly, and is, fortunately, at the same time comparatively cheap.

Milk, the pattern food, contains, it will be remembered, twice as much fuel as flesh substance in it. But bread contains eight times as much fuel as flesh-making substance. Consequently a great deal more bread has to be consumed to get the same amount of nourishment out of it, and then very much more fuel has been taken into the frame than is required, which has to be got rid of as waste. Hence it is both

economical and wise to add to a bread diet, whenever this can be done, some other kind of food, which consists principally of flesh-substance. Butter and fat are also advantageously taken with it, because the fuel contained within bread is a great deal of it still only store-fuel, and unfit to undergo immediate burning.

The best addition that can be made to bread-diet is obviously that flesh-substance which is already in a very perfect and condensed state—namely, meat. Lean beef contains four times as much flesh-substance, weight for weight, as the most nutritious bread, and it is entirely destitute of the store-fuel, starch, of which bread has such a superabundance. Meat therefore is manifestly the natural ally of bread in the formation of a very nutritious diet. All wild animals have very little fat mixed with their flesh. It is, however, the great object of the grazing farmer to make his mutton and beef as fat as he can. Meat, as it is sent to market, commonly has one-third of its substance fat alone. Such meat approaches more nearly to the nature of bread, and indeed may almost be used instead of it, so far as its influence on the support and warming of the frame is concerned.

It is even more important how meat is cooked, than it is how bread is made. A very great deal of waste and loss are easily produced by unskilful management in this particular. Meat is cooked to make it easier of digestion: indeed by the process digestion is begun by art before the food is introduced into the stomach. A certain quantity of the meat is necessarily lost by cooking. A pound of beef, for instance, is reduced 4 ounces in boiling, and a pound of mutton $3\frac{1}{2}$ ounces. This loss is, however, in well-managed cooking, principally water and fat; with badly managed cooking nearly all the nutritious part of the meat—its flesh-substance—may be wasted too.

A pound of meat loses an ounce more in baking, and an ounce and a half more in roasting, than in boiling. Boiling is therefore the most economical method of the three. Meat should always be put first into boiling-hot water, because by this means the pores of the surface are at once closed fast, and the juices shut in. When meat is placed in cold water, and kept gently simmering, the juices all ooze out into the water. The latter plan is the best mode of proceeding, when the object is to make nutritious soup or broth. But when it is desired to keep the meat itself nutritious, the employment of the greater heat at first is the more judicious course. So likewise in roasting, the meat should be placed at once close before a clear, fierce fire, in order that by the curdling power of the heat a great coat may be formed upon it, through which the juices cannot flow; then it should be removed further away, in order that the inside may go on cooking more gradually by the heat of the imprisoned juices. When meat is placed before a dull, slow fire at the first, the principal part of the gravy runs out, before the surface is hardened and closed.

Meat is the most valuable addition which can be made to bread, but unfortunately it is not a cheap addition. It requires a certain command of means always to be able to place a joint on the table, and this cannot be constantly reckoned upon by working men, who have families to provide for. Any kind of hard and inferior meat which may be purchased comparatively cheaply, as, for instance, an ox's cheek or a sheep's head, may, however, be made to yield a richly nutritious and palatable meal. It should first be rubbed with a little salt and pepper, and then be put into a saucepan, with from one to four quarts of cold water, according to its size. This is then to be kept simmering upon the hob from one to three hours (according to size). The fat being skimmed off will be serviceable for making puddings. A little celery or onion may be put in during the simmering. The meat will prove deliciously tender, and there will be in addition, from one to three quarts of excellent nutritious soup to be eaten with bread. Even bones, of which a fifth part is nutritious substance, may be made to furnish a meal for hungry stomachs, by this simple contrivance. Break small six pounds of bones, boil them in eight quarts of water for three hours, with three tablespoonfuls of salt and a bunch of thyme or other savoury herbs. Then

skim off the fat and remove the bones. Put into another saucepan or pan, the fat, two sliced onions, a pound of carrots, turnips, or celery, and two teaspoonfuls of sugar. Set the whole on the fire, and stir for 15 minutes, add half a pound of oatmeal and mix this well in, next pour over the broth from the bones, add a pound of rice, and boil again until this is soft. By this management you may provide a very nutritious meal at a much lower cost, than a meal of bread.

The great object of cooking is the reduction of the several principles of the food into such a soluble state as will prepare them to be easily acted upon by the digestive powers of the stomach, at the same time that none of their virtue is allowed to be lost. Cooking is, indeed, properly the first stage of digestion; it is an art which the intelligence of man has taught him, in order that food may be made to go as far as possible in furnishing nourishment to living frames. By good cooking, hosts of things are converted into excellent nourishment, which would be entirely unmanageable by the stomach without such assistance. The art of cookery ought, however, never to be carried further than this. It should not strive to make men eat more than their bodies want, by furnishing the temptation of delicious flavours. Every meal should have brought together into it, a due admixture of the several distinct principles which have been named as the great requirements of the body; but there should be no greater degree of mixture than is just sufficient to ensure this. There should be flesh-substance in a half-dissolving or tender state. There should be a still larger amount of fuel-substance, partly fat, and partly such as is in a condition capable of being converted into fat in the stomach and blood. Mineral substance enough is sure to be present in every kind of food; and water, of course, can be added in any amount, as drink.

There are several common methods of intermingling different kinds of food, to form a meal, which seem to have been adopted almost unconsciously, but which nevertheless are right in principle. Thus meat and butter are, as we have seen, generally eaten with overstarched bread. Rice and arrowroot are nearly pure starch, and are commonly mixed with milk, and with milk and eggs, both which are rich in flesh-substance. White of egg is entirely composed of flesh-substance and water; it is added to puddings to make them more gluey. Eggs are eaten with fat bacon because the white is entirely destitute of fat. Yolk of egg consists of flesh-substance and oil. Pork is taken with peas and beans, because they possess a great abundance of nutritious or flesh-making substance, while the pork itself has more fat and less nutrition than any other kind of meat.

The potato contains twelve times as much starch as flesh-making substance; it is thus one-half less nutritious than bread. On this account it is very generally made the companion of meat. A very excellent nutritious dish may be formed by placing about two pounds of neck of mutton in a pan, with eight large potatoes and four onions sliced, a tea-spoonful and a half of pepper, three tea-spoonfuls of salt, and enough water to cover the whole; the pan is to be set in a slow oven for two hours, and its contents are to be all stirred up together when about to be served. When the potato is cooked, a portion of its store-starch is changed into sugar and gum; in this condition it is very similar to bread which has lost a portion of its flesh-making substance. It requires some little attention and skill to prepare the potato properly for the table. New potatoes cook best when put first into water nearly boiling; old potatoes more generally when first put into cold water. They should be boiled in their skins, until these begin to crack, a little salt having been added to the water. The water extracts a soluble matter contained in the root, which is not altogether wholesome; it should therefore be now thrown off, and the potatoes be left for a time standing dry near the fire, covered with a cloth. The more waxy the potato, the more quick should be the boiling. Watery potatoes are also greatly improved if a piece of lime, about the size of a nut, be placed in the water. It serves to extract from the tubers some of the substance which keeps them in a waxy state.

It is of the very highest importance that any one who is likely ever to have

the care of a household, whether large or small, should so far understand the objects of cooking and the principles upon which the process requires to be performed, as to be able to see that food is properly and economically prepared. If your means be small, remember that such knowledge can make that portion of your money which is devoted to the purchase of food, go as far again, and yield twice as much harmless gratification, as it would otherwise do; if you have an abundance of means, then the knowledge may be made serviceable in providing only such food as is suitable to the maintenance of health and strength, and the avoidance of disease. If you have a family of children to bring up, and have plenty of money to do it with, you are perfectly right to furnish them with every accomplishment, and every advantage learning confers; but never forget that no woman is ever less accomplished because she knows something about homely household concerns—cooking among them—as well as a great deal concerning other things.

(To be continued.)

Obituary.

We deeply regret to announce the decease of Captain Claridge, author of "Hydropathy," and other useful works, and the introducer of the water-cure into England. A man of rare philanthropy, high talent and energy, he did much good in his generation, and his memory deserves to be cherished not only by his own countrymen, but by thousands, in other lands, who have been benefited by his discoveries. A brief memoir of the deceased appeared in the "Journal of Health" some time ago. To what is there stated may be added that he was patentee of Claridge's Asphalt, and the originator of the wood-pavement in London. He resided for some years at Nice, and died at Castellamare, much lamented by all who knew him.

VARIETIES.

Clouds.—If it were possible to pass through life without meeting with clouds, it is likely that we should complain of too much light. As it is, the clouds appear to come at certain periods of our existence somewhat too loweringly upon us. The hope, the joy of youth, as they glide away, carry with them so many loves that have been as bright romances to our imagination, so many friends that seemed as though they were born to walk with us through the whole length of our days, so many dreams of peace, and proud, ambitious thoughts of winning fame, that we become sadder, if not wiser men.

Life's Troubles.—We may compare the troubles which we have to undergo in the course of this life to a great bundle of faggots, far too large for us to lift. But God does not require us to carry the whole at once; he mercifully unties the bundle, and gives us first one stick, which we are to carry to-day, and then another which we are to carry to-morrow, and so on. This we might easily manage, if we would only take the burden appointed for us each day; but we choose to increase our troubles by carrying yesterday's stick over again to-day, and adding to-morrow's burdens to our load before we are required to bear it.

Tongues in the Trees.—As you draw trees more and more in their various states of health and hardship, you will be every day more struck by the beauty of the types they present of the truths most essential for mankind to know; and you will see what this vegetation of the earth, which is necessary to our life, first as purifying the air for us, and then as food, and just as necessary to our joy in all places of the earth—what these trees and leaves, I say, are meant to teach us as we contemplate them, and read or hear their lovely language, written or spoken for us, not in frightful black letters, nor in dull sentences, but in fair green and shadowy shapes of waving words, and blossomed brightness of odoriferous wit, and sweet whispers of unintrusive wisdom and playful morality.—*Ruskin's Elements of Drawing.*

Air-plants.—Yes; these queer-leaved vegetals, half-plant, half-fungus, hanging in their cradles of damp sticks, or anchored mid-air on some wire-hung block of wood—always put me in mind of calumnies, Peter. Rooted in nothing at all but some dead bough, some branch cut off and rotten—feeding on nothing at all but air, the nitrogenic exhalation of wholesome plants around them—these things, notwithstanding, live, grow, and are green of leaf, and curious in flower, ay, and sometimes come to bear their own and especial poison-fruits and seed for future generations. And so with all this so frequent calumny, born of a lie, nurtured by gossip, it clings a poisonous living lichen to the falsehood that begat it, and neighbours watch the oddness of its leaf, and the monstrosity of its flower, and never (if they can help it anyhow) let the queer, amusing, evil creatures die! The stinking wonder of the greenhouse musn't perish, and shan't if their tongues can help the matter. It was Lord Melbourne, I think, who gave parliamentary recognition to his dread as premier of the power of falsehood; as a lie is not a thing to be despised; let every man in wisdom and in calmness answer calumny on occasions; not going far out of his way to do so, but as Providence offers; and not anxious about results, but as Providence wills; let him judge, however, that the God of Truth is better served

when falsehood is crushed than when it is let live ; even though this be for utter scorn's sake. There may be a humility in answering as there is a pride in silence ; and we know Who is always on the side of him that humbleth himself. Nature's ever-teaching parable declares, that the airy orchids are among the most poisonous tropical weeds, growing in deadly marshes where the cobra sucks its venom, and the fatal wourali-berries hang in clusters over miasmatic pools. Let us dread such moral air-plants—those uncharitable rumours of neighbours wherewith universal Little Peddington is ever gladly rife ; for, though so feebly rooted in some dead and buried lie, our breath may give them leave to live and help their poison to do harm.—*Dublin University Magazine.*

The use of Opium in China.—The Chinese rarely eat opium ; they generally smoke it, and are very particular concerning its quality. When opium is bought at the depôt ships, the Chinese agents or brokers test it by taking samples from three balls, mixing them with water, simmering and straining the liquid, evaporating it by heat to the consistence of treacle, and then smoking all the three samples separately or together, to determine the probable average quality of the whole chestful. In bygone years the ryot cultivators in India were wont to increase the weight of the lumps of opium by adulteration with sugar, molasses, catechu, cowdung, soft clay, or pounded poppy-seeds ; but the vigilance of the company's servants on the one hand, and of the Chinese purchasers on the other, have lessened this practice. When the opium is about to be prepared for the smokers, the balls are cut open, and are steeped and simmered, strained and boiled, till they assume the state of a pasty mess ; this paste is spread with a spatula in pans, and dried over a fire. Again is the drug steeped, simmered, strained, boiled, evaporated, and dried, by which it is released from many impurities ; and finally it is put into small buffalo-horn boxes, the Chinese represensatives of tobacco-boxes or snuff-boxes. The prepared opium is smoked in pipes, as we smoke tobacco. The Chinese believe that the effects of the drug—the exhilarating effects, at any rate—are more apparent by inhaling the fumes than by chewing the solid itself, and they give themselves up to the indulgence in the following way :—The pipe employed is formed of heavy wood, having an earthenware bowl at one end, and a cup that serves to collect the residuum or ashes after the combustion of the opium. The smoker-lying on a couch or bench, holds the pipe, or smoking-pistol, with the bowl near a lamp, the lamp and the couch being so placed that the opium can be kindled without disturbing the lazy smoker in his position. A piece of opium about as large as a pea or a pill is taken up by a sort of spoon-headed needle, placed in the hole in the bowl, and kindled at the lamp ; then one or two whiffs suffice to draw in all the smoke emitted by the burning drug. Old smokers will retain the breath a long time, filling the lungs and exhaling the smoke gradually through the nostrils. When the pipe has burnt out, the smoker lies still for a moment, thinking of his dreamy delights, while the fumes are dissipating, and then repeats the charge until his prescribed dose is exhausted, or until his means of purchase are expended. There are smoking-shops by hundreds in the towns within moderate distance of the coast ; and these shops, we are told, are kept open day and night, each being furnished with a number of couches formed of bamboo canes and covered with mats and rattans ; a sort of wooden stool serves as a bolster or pillow ; and in the centre of the shop is a lamp that serves for many smokers, each of whom is enabled to turn the bowl of the pipe towards it. Mr. Pohlman, an American resident at Amoy, has stated that there are a thousand of these opium smoking-shops in that town alone.—*Dickens's "Household Words."*

NOTICES.

In consequence of the rapid sale of Dr. Coffin's "Treatise on the Diseases of the Generative Organs," the price in future will be only 1*s.* 6*d.*, so that the work will come more within the reach of the working classes.

Dr. Coffin may be consulted gratis, as usual, every Saturday evening, from four to eight o'clock, at the Botanic Establishment, No. 24, Union-street, East, Spitalfields. *Patients not admitted to the waiting-room after eight o'clock.*

Dr. Coffin may also be consulted at his residence, 24, Montague Place, Russell-square, daily *(Sundays excepted)*, from one to two o'clock (fee one guinea), on any day except Monday, on which day the fee will be five shillings only.

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No. 246—Vol. VIII. SATURDAY, OCTOBER 17, 1857. Price 1d.

NEW ARRANGEMENTS FOR EDITING THE JOURNAL.

We are enabled to announce to our numerous Agents and Friends, that we have now effected a change in the editorship and management of our Journal which we hope will give general satisfaction. We have long been aware of the *loose* and *unbotanical* way the Journal has been conducted. Our friends and agents have again and again complained to us at not only the large amount of extraneous and useless matter introduced into its columns, but even the flat contradictions to our former statements and theories; and many of our friends have thought we had changed our opinions, or were not honest in giving them in the first instance; as also the long and useless contributions which some of those practising or pretending to practise our system have overloaded the Journal, with that which had been published before, all of which we have regretted, but, situated as we were, we could not prevent. We have now arranged with a competent and efficient "*Coffinite*," who, in conjunction with ourselves, will take charge of the Journal, and we promise our friends that there shall be no more, for the future, of those *foreign*, *useless* and *stale* articles with which its pages have, we almost might say, been desecrated. With this promise to our friends, who are all aware that we always redeem our promises, we now call upon them to assist us, not only in increasing the sale of the Journal, but in sending up cases cured, and, from time to time, statistics of their practice.

We have, for nearly twenty years, been engaged in propagating our system in England, and never once deviated from our first starting point, either in theory or practice; and with all the obstacles that could be thrown in our way, we have succeeded beyond our most sanguine expectations.

We have, during the above period, not only given oral instructions to millions of the people of this kingdom, but have published books, which have fully given our theory and practice to millions more, nor have we confined our little knowledge to the English public: our "Guide to Health" has been translated into Welsh, French and German, and in every language it has been and is being appreciated. This fact alone has given a direct contradiction to the slanderous falsehoods that have been industriously circulated against us and our theory. We have devoted a large amount of money in thus dispersing our books, &c., and although in some of those enterprises they have not been remunerative, yet we have the satisfaction to know that we have given to many thousands of strangers the means of lessening the sum of human misery; and if we know our heart, we feel that, in that alone, we have received *full pay*. Again, then, we call upon our agents and friends to help us in this our renewed determination to devote our time to render the Journal worthy the noble cause it advocates; and it may give our friends a little more stimulus to inform them, that for the time and labour *we bestow*, *we do not receive one farthing recompense.*

As there are many individuals in the country, who are selling medicines under

the pretence of being our agents, and in many cases the medicines are not only not genuine, but sold at a reduced price, we would advise our agents to put an advertisement in the Journal of their identity, and that they are the only authorised persons to sell the genuine medicines. For this purpose a page of the Journal will be devoted, and the scale for prices will be published.

We also announce that we have made arrangements, at some considerable increase of expense, to embellish our Journal with a COLOURED PLATE of one of our medical herbs, in every third number after the present one, with full description, time of flowering, where to be found, &c., which we have no doubt will add much more interest to our Journal, and materially enlarge its sale; and the more that sale increases, the *more frequently* shall we be able to give a COLOURED PLATE.

24, *Montague-place*,
Russell-square.

ASTROLOGY AS CONNECTED WITH MEDICAL BOTANY.

WE shall commence and carry out the present subject, by adhering to the rule, that *the great head of our system*, Dr. COFFIN, does (viz.), to write for the masses, and in so plain a style as to be perfectly understood by the working man, who, alas! has but little time for improvement.

It is an established fact, experienced by all who have considered the subject, that there is an unaccountable propensity in the majority of those we more immediately write for, to indulge in the belief of what is improbable, supernatural, and above their comprehension. Owing to this, Astrology has been, and even now is, the *tool* of knaves, the belief and wonder of the unlettered, credulous, and the superstitious. Hence, from time immemorial, mankind have been led to believe that they are born under certain planets, connected with natural arrangements of the signs of the Zodiac and principal fixed stars, under the influence of which every action and occurrence of their lives—nay, all things belonging to their animal and intellectual natures—are governed and controlled. In order to make the fallacy of Astrology clear to you, my friends, we must enter a little into this would-be science, giving you a slight description of its origin, and its misapplication to life, health, disease, and Medical Botany. The Chaldeans were first acquainted with Astronomy, from which Astrology took its rise, and surrounded the various clusters and groups of fixed stars with the outlines of various animals, &c., in order to classify and distinguish them. The ancient Egyptians, following in their wake, observing the sun apparently moving in different assemblages of stars, in the several months of the year, likewise surrounded *them* in their representations with similar outlines, having reference to the employment of husbandry and agricultural pursuits. Thus we have the twelve signs of the Zodiac; their names, and the signs by which they are distinguished. We will now present to your notice

NORTHERN SIGNS.

♈ Aries	The	Ram
♉ Taurus	„	Bull
♊ Gemini	„	Twins
♋ Cancer	„	Crab
♌ Leo	„	Lion
♍ Virgo	„	Virgin

SOUTHERN SIGNS.

♎ Libra	The	Balance
♏ Scorpio . . .	„	Scorpion
♐ Sagittarius . .	„	Archer
♑ Capricornus . .	„	He Goat
♒ Aquarius . . .	„	Water-bearer
♓ Pisces	„	Fishes

Observation.—The astronomical year commences on the 25th of March, the day on which the sun enters the first degree of Aries, which is on the equator.

The system in which our earth, to us the most important part, is placed, is called the Solar System, and contains eight primary planets, which revolve round the sun as their common centre; besides nineteen secondary planets or satellites revolving round their primaries in the same manner, as the moon revolves round our earth; also there are many smaller planets between the orbits of Mars and Jupiter, called asteroids. The names given to the planets are taken from the Heathen Mythology of the Greeks and Romans, and are as follows, arranged according to their order

from the sun, with their distances from that luminary in miles, with the number of moons belonging to each planet:—

Planets.	Moons.	Millions of miles from the Sun.
Mercury . .	none . .	37
Venus . . .	none . .	68
Earth . . .	one . .	95
Mars . . .	none . .	144
Jupiter . . .	four . .	493
Saturn . . .	seven . .	901
Herschel . .	six . .	1800
Neptune . .	one at present discovered	
Sun) are also brought into the		
Moon) astrological scheme.		

Now, in Astrology, only the first six planets, with sun, moon, and Zodiacal signs, are used; the fixed stars very rarely. Upon an examination of the above, we would ask our readers whether it does not strike their minds that this science, founded only upon a part of the planetary system, SUPPOSING PLANETARY INFLUENCE to be true, must be founded in error? for, if one of these bodies exercise any influence for good or for evil, by parity of reason, all should; but all were not discovered till recently, consequently, what influence these recently discovered planets had, was not known, though, of course, that influence must have been in operation; their NON-DISCOVERY could not have prevented it. Therefore, so far as this part of our subject goes, it proves the error of Astrology, though founded upon the sublime science of Astronomy, and assuming that there is such a thing as planetary influence.

Having thus, by way of introduction, given a brief outline of that upon which astrology is founded, we come more immediately to treat upon the subject under consideration. In order, not only to arrive at the treatment and cure of diseases by Botanical Medicines, but even to gather the herbs in accordance with the rules of Astrology, require long study, and when all this time is expended, you will be no nearer the truth than at your commencement, when less than one hour's study of the directions given by the justly celebrated Dr. COFFIN, in his inestimable "Guide to Health," will enable even a child to gather herbs, as well as the most learned astrologer; and as to the treatment and cure of diseases, Dr. COFFIN and his Agents can testify, that they have performed more cures than the whole host of Astrologers, who have depended upon that science as the mainspring of their practice, through all their creeping, dark duration. For the further explanation of the subject, I will now proceed to point out, as shortly as possible, the scientific nonsense by which all their practice is governed. The Astrologers say, "You must take notice of the elemental qualities of each planet (viz.), whether hot and dry, or cold and moist." Thus they say, "Saturn is by nature cold and dry, Jupiter hot and moist; consequently, as Hemlock and Henbane are cold and dry, Saturn rules them." Again: Jupiter is hot and moist, therefore as Burrage and Mallows are so, they belong to Jupiter; and so on for the other heavenly bodies. Now we would ask, How in the name of common sense should they, the astrologers, obtain this information?

The discovery of the qualities of herbs of course was the result of observation and experience; but here the analogy ends, because the only thing they can draw their inference from is the *fabled* nature of their *fabled* Gods, Saturn and Jupiter, and not from any natural qualities that could be by any possibility found out as residing in the planets themselves—bodies that are at such immense distances from the earth that we should not miss them, so far as regards any influence inherent in them for our good or evil, were they totally extinguished. The Astrologer having proceeded thus far in order to carry out his absurdities, must attribute to each herb its right planet: accordingly, having found the virtue of the plant, whether cold and moist, or hot and dry, he finds out the fabled nature of the Heathen God or Goddess, according to their Mythological character, and immediately assumes that the planet which bears the name of this Heathen Deity is under his or her dominion and control, and therefore cures disease either by sympathy or antipathy (that is), either by acting in accordance with the nature ascribed to the planet, or by acting in opposition to its influence. We shall and must enter a little more yet into detail respecting

this subject, and if our readers feel as much interest in this we consider somewhat important theme (as important it must be when it dispels error), as we do in writing it, the pleasure will be mutual. Again: the Astrological scheme demands, that herbs must not only be gathered when the planet is in a certain position, but, also, if the plants be ascribed by other Astrologers to another planet, they must be gathered only when the two planets are placed in friendly relation to each other. What arrant nonsense! besides the amount of study it requires. We have now arrived at a very interesting part, which we must give at some length, in order that you may perceive more of the fallacy of this anciently founded science, commencing with "the plain method of gathering herbs at the day and hour when each planet reigns which owns the herb," showing the dominion of each planet for each day of the week in a *tabular form*, that you may have a clear view and understanding of the matter: we will then exemplify its absolute want of truth.

According to astrologers, all plants under the

Dominion of the Sun	must be gathered on		Sundays
,,	Moon	,,	Mondays
,,	Mars	,,	Tuesdays
,,	Mercury	,,	Wednesdays
,,	Jupiter	,,	Thursdays
,,	Venus	,,	Fridays
,,	Saturn	,,	Saturdays

Now every planet which is lord of the day, chooses its first and eighth hour; each day being divided into twelve equal parts, called planetary hours, which are nearly twice as long in the height of summer, as in the midst of winter. Thus, suppose we wish to gather plants under the dominion of the sun, on one of the first ten days of January: then, upon Sunday, from the sun's rising, which is six minutes after eight o'clock in the morning, until forty-six minutes past, also from forty minutes past noon, until twenty minutes past one, any herb may be gathered under the dominion of the sun, you having the benefit of the day and hour; and so on for every other plant.

(To be continued.)

MEDICAL BOTANY, AND ITS ADVANTAGES TO OUR TROOPS IN INDIA.

At the present crisis of Indian affairs, it is most desirable that special provision should be made for the relief of our fellow countrymen, who are exposed to the diseases of a tropical climate, and to other complaints induced by the hardships consequent on a campaign, where the atmosphere is tainted by the effluvia exhaled from the thousands of the slain. The medicines which Medical Botany recommends, are found growing in great abundance in India. The traveller who has studied the appearance and the properties of plants, and has, therefore, been able to select and apply them when he has been afflicted, has been in a far happier position than the man who is visited with disease in a foreign land, where vegetation is luxuriantly growing around him, and yet he languishes with pain and suffering, with an effective remedy within his reach, but does not know it. This was painfully exemplified a few years ago, when Captain Russell was on a visit in the neighbourhood of Serampore. Very shortly after the rainy season, he met with an Englishman who was writhing in mortal agony from the bite of a most venomous serpent. As soon as the captain heard the tale of woe from the suffering man, and learned the cause, he looked around, and his experienced eye soon discovered several tufts of bright, dark-green leaves, about the size and appearance of the well known culinary vegetable spinach. He instantly plucked a large handful of the leaves, bound some of the bruised leaves in the shape of a poultice on the wound, and squeezing the juice of others into his hand, put as much of it as he could into the lips of the sufferer. The swelling abated, and the pain was removed, after a few minutes. The man so far recovered as to be able to express his gratitude to the captain for his Samaritan attention; but he soon died from debility and exhaustion, produced by want of refreshment, and he was too prostrated even to be conveyed where proper food could be obtained. Had the herb been more promptly applied, the life of the

man would, in all probability, have been saved; and had he possessed the knowledge of the restorative means, he would, no doubt, have instantly resorted to it, as it was within his reach, and the exhaustion produced from the protracted suffering would have been avoided. The efficient power of this plant had been proved in several other instances, where it had been used both internally and externally, and all the bad effects of the venomous bite were entirely counteracted within a few hours. The application of these facts must be very obvious to every intelligent reader. If the accurate acquaintance with only one single plant be the means of mitigating pain under the most distressing circumstances in one case, and of saving lives in many others, a more extensive knowledge of the healing properties of many plants which abound in the shady places of tropical climates, must be productive of benefits upon a very wide scale.

At a time when an appeal is made to the benevolent to contribute to the Indian fund, it is right that every Briton should ask, "In what way can I most effectively assist in alleviating the sufferings occasioned by the Indian mutinies?" Every Medical Botanist should answer this question, by saying, "I will assist in furnishing our troops with books and medicines, or in any other way in my power which may be thought most desirable, in order to give them a thorough acquaintance with the science;" so that, in an emergency not unlikely to arise, one soldier may be able to administer to the relief of the sufferings of his comrades, and thus mitigate pain and prevent the wide spreading of disease, which was greatly occasioned by cases of long neglected fever or diarrhœa, during the Crimean campaign. It is highly probable, that if help of this kind, and from the voluntary efforts of Medical Botanists, be not afforded, that hundreds, if not thousands, of our brave soldiers will suffer and die without any medical aid whatever. Is it not possible that among the number of ladies who have derived benefit from the system of Medical Botany, and who are enjoying that robust health which neither they nor their friends ever expected they would enjoy — is it not possible that some of these ladies are so well acquainted with the science, experienced in its practice, and embued with benevolence and patriotism, that they will volunteer their services, and, emulating the example of Miss Florence Nightingale, offer to aid in nursing the sick and the wounded, on those principles of healing which Dr. COFFIN introduced, and which they have tested and demonstrated to be founded in truth, and to be honoured with success. There are ladies in this country of sufficient spirit, compassion, and enterprise for the noble undertaking, and are there not some among the ranks of Medical Botanist? We have before us a letter extracted from the *Morning Star* of the 1st instant, and we quote it for the benefit of our readers, that they may see that there is a spontaneous movement on this subject, and that ladies are anxious to know the way of carrying out their compassionate purpose—

"Sir,—I believe some few ladies have already gone to India as nurses to our sick and wounded. I wish to go myself, but have not the slightest idea to whom or where to apply, or what means to take for the fulfilment of my object. There may be others in the same predicament who would, as well as myself, feel much obliged to you if you would in your valuable paper, the *Morning Star*, give some directions to those who wish to go to India as lady volunteers to nurse the sick and wounded. I am aware that you disapprove of the policy which has led to this war, and that an answer to my question may not be exactly in your line; but, in pity for the sufferings of the unfortunate men who have to bear the burden of Anglo-Indian mismanagement, could you not offer some advice to those who wish to do the very little they can to help them?

"My address is, Miss C., Postoffice, Hildenbro', Kent. If my question could be answered, it would much increase our obligation, as no time should be lost in setting to work.—Believe me, Sir, yours truly, S. L."

Ladies, who owe your lives, your health and your families to Medical Botany, go and do likewise. Some can go personally to India; others may have domestic ties which cannot and ought not be broken

and are therefore bound here. The latter may assist the former by making a generous offer of assistance, to bear some of the pecuniary burdens which may attend the undertaking; and when this burden is divided among many, it will press heavily on no one, but lightly upon all. Some who must stay at home may give books and contribute to the outfit, others may give medicines or money, while others may be found of ample heart and ample purse who will give to all these departments. There should be no delay on this subject. What is to be done, should be done quickly, and in less than two months volunteers in this benevolent work may be in the sphere of action, and receiving the reward of their service and sacrifice. Letters addressed to the Editor of this Journal, to the care of Mr. Ford, 134, High Holborn, London, will receive prompt attention.

THE VALUE OF GOOD FOOD.

(Concluded from page 83.)

Fish very nearly resembles lean meat in its character; it is hence a very good companion to potatoes and bread. In a general way it requires to be eaten with butter or oil on account of its deficiency in this ingredient. Skate has 32 times as much flesh-substance in it, as fat. Haddock and herring have eleven times as much. The salmon and the eel are the only kinds of fish which are in themselves of a very oily nature. The salmon has a little more than three times as much flesh-substance as oil, and the eel has actually more oil than flesh-substance. Fish is rather more easy of digestion than meat, and when judiciously combined with bread, potatoes, and fatty substances, constitutes an exceedingly wholesome food. The waters of the ocean are so bounteously replenished with this kind of nourishment, that they are capable of furnishing a very much more abundant supply than they have yet been made to do. As if for the very purpose of pointing out that one of the objects for which fishes have been placed in the water, is the furnishing nutrition for the human race, some of the kinds that ordinarily dwell in the deep ocean are driven by their instincts, at certain seasons of the year, to the shoal waters surrounding the land, where they are quite within the reach of man.

Fresh vegetables contain a very large proportion of water, but there is in their structure also a considerable amount of flesh-making substance, besides starch and sugar. The turnip and the carrot are very nutritious, but deficient in fuel-substance upon the whole, so that they form good additions to fat meat like bacon and pork. The same may be said of cabbages and cauliflowers, which exceed even carrots and turnips in their nutritious power. Boiled cabbage and potatoes beaten together with a little pork fat, salt and pepper, form a compound which approaches very nearly to the nature of bread, and which indeed is as nutritious as the richest Scotch oatmeal. One third part of dried cabbage consists of flesh-making substance. The onion is very rich in flesh-substance, and therefore forms a valuable addition to dishes containing much store of starch and fat.

Fresh vegetables require, in most instances, to be boiled before they are eaten, because their juices contain disagreeable flavours, and in some instances unwholesome ingredients, which are, however, entirely removed by the influence of boiling water. Ripe fruits, on the other hand, are vegetable substances, which have been thoroughly cooked by the maturing powers of the sun, and which have also been endowed, by the hand of Nature, with the most delicious flavours, in order to tempt man to partake of them in due season; they are, so to speak, bouquets provided for the palate. Ripe fruits consist principally of water holding in solution sugar and small quantities of flavouring oils. But they also contain in their juices peculiar acids, which exert wholesome influences over the blood in hot weather. They merely require to be partaken of in moderation, and when thoroughly ripe. If not perfectly ripe, they should invariably be cooked, before they are eaten, in order that the process of sugar-making going on within their chambers, may be assisted and hastened. Almost every case in which fruit has seemed to be unwholesome, has been due either to its having been eaten when unripe, or to its having been consumed in

excessive quantity. The danger of its being eaten in undue amount is very great, on account of the agreeable and tempting flavours with which its juices are endowed.

We have now to suppose that a wholesome but plain meal of good bread, and well-cooked meat and vegetables, selected and prepared according to the principles which have been explained, is set before you, and that you are about to apply these to their proper office of nourishing your body; how will you proceed? You will introduce the food, morsel after morsel, into your digesting bag. Now while you are doing this, take care to bear in mind what you are about. You are swallowing substances that will need to be brought most thoroughly within the power of saliva and stomach-juices, in order that these may perform their wondrous dissolving work. Do not, then, forget the mill. Those ivory teeth have not been planted so firmly in your jaws for no purpose. They are meant for work, and for hard work too. Food is not intended to be bolted, but to be ground. Do not furnish one single morsel with its pass until it has been reduced to the finest pulp; then the saliva will get to every grain of the store-starch, and change it into serviceable sugar and gum, and the stomach-juice and liver-juice will get to every fibre of the flesh-substance, and reduce it to milk-like liquid, capable of entering the channels of the supply-pipes. If you bolt, instead of thoroughly grinding your food in the mill, be assured that the heavy lumps will prove too much for your digesting bag, however strong that may be. The greater portion, after having oppressed the offended stomach with their unmanageable load, will cause griping and all sorts of annoyance, and will at last be dismissed from it, undissolved and without having furnished any nourishment.

Another important thing is to get enough food if you can; the body requires to be sufficiently nourished. On the other hand, however, be very careful that you do not attempt to get more than enough. If you do try to accomplish this, you will fail in the attempt, and have to pay a heavy penalty, for your failure. Thousands upon thousands of people do try, and do fail, and then pay such penalties. You have heard it said, that enough is as good as a feast. This is only a half truth: it does not go sufficiently far. Enough is far better than a feast, if "a feast," means more than enough. There is more danger really in overfeeding, than in underfeeding. Countless numbers of underfed countrymen work through a long life in the fields, in happiness and contentment, and arrive at old age, almost without an hour of illness. But every overfed man sooner or later has to go to bed, and send for the doctor to help him to get rid of either rheumatism, or fever, or gout, or inflammation, which are forms of disorder into which superfluous food often changes itself. The life of labour and short commons, has upon the whole a much larger share of happiness than the life of laziness and luxury.

But what is enough? That in regard to the feeding is a very serious question. At the first glance, too, it seems to be one which is not altogether easy to answer, because some men require more food than others, just as some steam engines consume more coal than others, to keep themselves moving; and just as some lamps take more oil than others, to keep up their flames. It is, nevertheless, a question which may be very easily answered. Every man who eats his meal slowly and deliberately, not forgetting the mill, has had enough when his appetite is satisfied. Appetite really is Nature's own monitor. It is ruled, not by the state of the stomach, but by the condition of the blood. When so much blood has been taken from the supply-pipes of your body, by the working parts, that those pipes begin to be comparatively empty, their emptiness makes itself felt in your frame as hunger. Obedient to the hint, you procure food and eat. But while you are eating, what happens? First you seize the food with all the keen relish of a hungry man. Then as you eat on, the relish becomes less and less, and if your meal be a simple one, when you have had enough, all relish has disappeared, and the very things that tasted so deliciously at first, are insipid, so that you find no further enjoyment in the act of grinding and swallowing them. Go on eating after this, and the insipidity

will be transformed into disgust; and if, notwithstanding this, you still persevere in forcing food into your stomach, that sensible organ will at last rebel against the tyranny, and return the whole which it has received upon your hands. Then it will be some little time before the stomach gets over the insult. Consequently the blood remains all this while in the impoverished state, and the result of the overgorge is that the body itself is actually starved, instead of being feasted. If when your natural appetite for food is satisfied, and your enjoyment and relish of it have ceased, you have rich and high-flavoured dishes set before you, the high flavours will then still prove agreeable to the palate, and act upon it as a sort of excitement, and the natural appetite will have its work superseded by a false and artificial one, and you will go on eating under this temptation, until your stomach is overcrammed. All the so-called luxuries of cooking are merely devices to make men eat more, who have already eaten enough.

But when men who have already eaten enough, eat more, what must happen? One of two things: either the stomach, being particularly vigorous, will get through an extra amount of work; then there will be more blood sent into the supply-pipes than the body requires, and the frame will be everywhere stuffed and oppressed with the load, to the danger of inflammations, rheumatism, and other like disorders being set up; or the stomach will be unequal to the task of doing extra work; then the food which cannot be digested will decay and putrefy in the stomach and bowels, producing there all sorts of poison-vapours and disagreeable products, which will lead to stomach and bowel disorders, until nature, or the doctor, finds some way for their removal, or until something worse takes place.

Thrice favoured is he who is not daily exposed to the dangers of a luxurious table. Money, after all, is not in itself a blessing. It is only a blessing when it is possessed by those who know how to employ it for good purposes. In the hands of men who do not know how to employ it so, it often proves to be a curse.

Food, which is already in a state of commencing putrefaction or decay, is always dangerous for this reason: it forms poison-vapour and injurious products in the stomach, before its digestion can be completed in the natural way. If, however, meat about to be used is at any time found to be tainted, it will be at once rendered wholesome, if the most tainted part be cut away, the cut part being rubbed with a piece of charcoal, and the joint be then well boiled in water, in which a piece of charcoal has been placed.

Here then, in conclusion, are two or three golden rules for the management of your feeding.

Never have any but the plainest and simplest food placed before you when you are hungry, whether you be rich or whether you be poor.

Eat of it until you find the relish for it disappearing.

There stop, and on no consideration swallow another mouthful, until the sense of appetite and relish comes back to you.

By these means you will make sure that you always have nourishment enough, and that you never commit the folly of attempting to get too much. Keep ever present in your mind that it is not food in the stomach, but food in the blood, which confers strength, and that it is the natural appetite and relish for food, which tell you when the blood needs a fresh supply, and when the stomach is ready to deal with it in the blood's behoof. It is in order that you may not be deprived of the service of this natural indication that it is so necessary you should eat nothing but plain and simple food; bread, ripe fruit, and well-cooked meat, and vegetables, without spices and artificial flavours, such as persons who are called good cooks delight in. On account of the general occupations of life, and for other reasons, it proves to be convenient that meals shall be taken at regulated and stated times. Three meals a day, separated from each other by an interval of five or six hours, is a very good arrangement, because these intervals give the stomach a couple of hours' repose after each act of exertion.

Peat Gas.—From a single pound weight of common peat an hour's light may be produced; and its cost being very small, it will ultimately be extensively used throughout Ireland. In its production there is one third of charcoal.

MEDICAL BOTANY IN OXFORD.

TO DR. COFFIN.

On the evenings of September 29th and 30th, Mr. Benjamin Scott, agent for Dr. Coffin, delivered two able and impressive lectures on Medical Botany, in this city, to very respectable and large auditories; among whom, we noticed some members of the University (residents in Oxford) and a surgeon (also of this city). For two hours each evening, the lecture kept its audience deeply interested, who repeatedly gave unmistakable evidences of their appreciation, both of the lecturer and the subject, by repeated and long-continued applause. This is the second time Mr. Scott has favoured the citizens of Oxford with lectures on Medical Botany; I think perfectly to the conviction of all who listened to him, that he perfectly understands his subject, and from his statements on the nights in question, as also from my own observation, and of many now in this city, that, understanding perfectly well the system he advocates, he understands also how to *cure disease;* for many now living would in all probability have been dead or dying, had they not applied to him. It would be a blessing if every city in England had an agent, or was visited by a lecturer on the subject, who could fairly and powerfully bring the subject before the public, for certainly no system is so worthy of support as the Medical Botanic System, founded by Dr. Coffin.

I am, sir, yours, &c.

Sarah Pacey.

[We feel gratified to know, from our fair correspondent's report, that our talented Oxford agent has given two such impressive and lucid lectures; also on being informed that both University men and a member of the faculty were present. This is as it should be. When men of literature and high standing support by their presence a cause so vilified, misrepresented and repudiated, as ours has been, it proves that a just appreciation of our principles, system and practice, begins to dispel the clouds of prejudice from the minds of the otherwise learned members of society; and that as "truth is simple and must prevail," it proves that Dr. Coffin's system of Medical Botany is greatly progressing, and will occupy that elevated position which, from its truthfulness, simplicity and health-dispensing properties, it so richly deserves. Every person therefore may rest assured that the more it is promulgated, tested and tried, the more it will be trusted, confided in and valued.]

TO THE EDITOR.

Sir,—Having lately been in the mining districts, and being a convert to Dr. Coffin's practice, I have uniformly and fearlessly recommended it, and am exceedingly desirous of correcting a very erroneous idea, which has taken possession of many, and become of late rather prevalent (viz.), that Dr. Coffin is not living—nay, the question of his death has been put to me by a party within ten miles of the metropolis, and the inference that is drawn from this appears to be, that the system is retrograding, and will soon become a thing of days gone by.

It however affords me the highest satisfaction to be able to contradict this, and to state to all, and our provincial friends in particular, that Dr. Coffin is living, is in health and spirits, and is daily receiving and meriting the warmest expressions of heartfelt gratitude from fathers, sons, wives and daughters, who, as well as their relatives and friends, have been restored to that greatest of earthly blessings, HEALTH.

Instead of Dr. Coffin's (all honor to his name!) being dead, he lives, and is hourly prescribing the revivifying botanical cordials, in conjunction with that inestimable system, first by him introduced, fraught with all their health-giving principles, thereby stamping Dr. Coffin as one of the greatest benefactors of society; and the more his system is studied, examined, and tested, the more prejudice will be uprooted, mankind enlightened, and the doctrine of the rational treatment of disease, in accordance with the laws of nature, more and more appreciated.

I would, therefore, most earnestly entreat all interested and engaged in the diffusion and practice of this invaluable system, to contradict this impression, assuring all that he is living,

and with all the energy which so remarkably belongs to his character, is successfully combating disease in all its varied forms, and restoring patients to perfect health. VERITAS.

ON MEDICAL PRACTICE, ANCIENT AND MODERN.

Embracing various Incidents of the Botanical System of DR. COFFIN, *and Illustrations of the Importance of his Practice to the Safety and Happiness of the Community.*

It would require a volume of extraordinary size, besides time and labour, exceeding the abilities of the most talented individual, even to give the names and title-pages of half the authors who have started and attempted to defend some new theory, in relation to febrile diseases, and the long catalogue of complaints incident to human nature.

The different doctrines, jarring and contradictory explanations of the general principles of medical science, by which they have pompously tried to enlighten the world, have served rather to confuse, confound and deeply cloud the understanding, lead the honest inquirer wide of the mark, and leave him in a state of great doubt and uncertainty. The disputes resulting from these multitudinous blunders have been conducted by every conceivable variety of genius, talent and disposition, from the days of Hippocrates, the immortal father of physic, down to the present time. These reputed oracles of medical science, who have distinguished themselves as the champions of learned controversy, have glutted Europe and America by their voluminous productions. Many have become eminent for the end less severity of the censures they have heaped on each other; by their physiological, pathological and therapeutical inconsistencies, invariable discordancies and violence of opposition, thereby sinning against all common sense. Their conflicting theories have been derived from the different and differing universities, whence they have obtained their education; every party exhibits a portrait of the nervous,. fantastical quarrelsome philosophy of their respective professors; the lenient hand of charity strives in vain to consign their illiberal and unprofitable disputes to the deep shade of well deserved oblivion. These remarks have not originated in any personal resentment against the faculty. They are not the spawn of that malice so often indulged against any *one*, who may attempt to question the lawfulness of their claims to diplomatic rights, who is not himself attached to the parchment corps.

The regular faculty claim not only to possess an exclusive right to the knowledge of medicine, but to vilify and abuse each other. Arrayed in the armour of academic honours, they assume the privilege to assault each other with high-toned raillery, but we plebeians must hold our tongues. If the learned barrister, or reverend divine, presumes to hesitate, or indulge a momentary doubt of their superior sagacity or knowledge, he must hold himself amenable, and be exposed to a regular lampooning, and a stormy shower of the Billingsgate technicalities peculiar to the order.

If our graduates and learned professors have never arrived at any certainty in medical science; if they still float on the broad sea of conjecture, or make moonshine travels in regions of delusive fancy, what avail the time and money expended for their education? If they have not any established principles among themselves; if they be almost universally dissatisfied with each other, and wander like Noah's dove without a resting place, what encouragement have we to become their disciples? Or how justify that obsequious homage and servile adulation, secured by the nominal honour conferred by a diploma, obtained by some means, from some medical institution that owes its importance to the patronage of the state, however obtained?

We know the faculty can justly boast of men whose extensive erudition would be an honour to any of the learned professions—these, in the lucid intervals of calm reflection, sacred to reason and common sense, rise superior to that sordid selfishness that too often perverts, corrupts, and deranges sound minds.

An intelligent writer has expressed his sentiments on a point, intimately connected with our subject, with a firmness and precision, that, no doubt, had the same language emanated from

the pen of a non-diplomatised Medical Botanist, it would have drawn down upon him the indignant frowns of the whole graduated fraternity, and loaded him heavily with hard names and abusive epithets.

"It has fallen to our lot," saith the writer alluded to, "to have a full opportunity of observing the management and utility of medical instruction generally, and we have no hesitation in saying that its advantages are very generally misapprehended, and its importance entirely overrated. There are no schools which have been estimated so extravagantly, and which do so little to meet the public expectation, as those of medicine."

Before the invention of the art of printing, when learning was confined to the halls of universities, the treasures of learning could only be obtained through the medium of public lectures; but at the present time, when the student, at an expense scarcely superior to that of a course of lectures, can collect in his study the united experience and observation of the profession, and can study, compare and arrange at his leisure the opinions of the most distinguished men, a course of lectures can be useful only as subsidiary, and strictly subordinate to a well regulated plan of reading, and a judicious use of the other advantages which ought to be afforded by institutions of this kind.

(To be continued.)

The Spider in his Workshop.—Few persons can boast of having seen the garden spider at the commencement of his operations. They work either in the night or very early in the morning. I contrived, however, to see the architect ere he had entirely finished his outworks, and was indeed delighted at the wonderful sagacity of his calculations. He planned and executed at the same time. There was no guess-work; everything was done on mathematical principles of exactness. His ropes, ladders, and scaffold being adjusted and fixed, and their strength thoroughly tested, the next step was to proceed with the internal arrangements. These consisted of a series of concentric circles, in the formation of which the most consummate art was manifested. The house spider's net, or web, is composed of one kind of silk only. The garden spider uses two kinds of silk in his operations. That which is employed in constructing the radii is not of an adhesive nature; but the reverse is the case with the silk used for the concentric circles; consequently it is by these last that the prey is secured. On paying him a second visit, he was seen comfortably and boldly stretched out on the centre of his mansion, head downwards. He had not breakfasted, but was evidently expecting company. Having witnessed his gigantic labours, a thought suggested itself that I should assist in providing the company. Accordingly, a wasp which found its way in at the window was struck down. Picking it up with the end of a pair of partially closed scissors, I took my position in front of the web. The eyes of spiders, it would appear, are so constructed as not to readily discern large objects, unless when in motion. My presence, therefore, was quite unheeded. I had frequently noticed this curious fact on former occasions. Presenting the wasp at the end of the scissors, his majesty first regarded it with fear; then with a feeling of hungry delight. His first impression was to run away from it, which he did. But as it was not quite dead, and was struggling, he evidently feared it might break away, and so escape altogether. Returning, therefore, he surveyed his prey as if doubtful how to manage him, for he unmistakably dreaded his sting. Herein was seen the sagacity, instinct, or reason of our hero. Placing one toe on the head, and another on the lower part of the wasp's body—avoiding the sting in the most masterly manner—in this stretched-out position he turned several somersets with him, and fairly doubled him up in his web, encasing him so firmly in his toils of new-spun silk that his death was immediate. He then dragged him up to a snug little apartment overarched by ivy, and there he sucked the juices of his body. In the course of sundry other experiments with the same spider, I coaxed him to come down over and over again, to secure other prey in the form of flies, &c., which I presented with the naked finger and thumb. He seized them greedily, spun rapidly round them to entomb them in his toils, and on every occasion returned immediately to his apartment to continue his feast on the savoury wasp.—"*Insect Curiosities,*" *by William Kidd, in the National Magazine.*

CORRESPONDENCE.

To Dr. Coffin.

Dear Sir,—I received your note on Saturday, but have been too busy to answer it sooner. Nothing could give me greater pleasure than to gratify you in your request, although it was to do no other good, yet I wish it may be the means of doing more than even that. In October, 1852, I went to Edinburgh. I was engaged there as clerk to a painter, and though I had no connexion with the paint, still the wareroom had a confined air. For some time I complained of a pain in my breast, which I was told was indigestion. I then took a severe cold, which lasted for about two months, with an irritating, short cough. At the end of the two months I had a severe stitch in my side, which came on in a moment; this the doctor said was inflammation, and told me a chronic inflammation had been going on for two

months before. He told me also to keep my bed, and put a mustard poultice to my side. This was done, but did no good. I then had a blister applied, which did as little good. I lay there for eight days, and perspired to an awful extent; the doctor tried to stop this but could not. I was exceedingly weakened; and the doctor, unknown to me, caused my landlord to write home on Thursday to my mother, saying that unless they took me home on the following Tuesday, I could not live above another week. I was accordingly sent home by sea on that day. I became still weaker, not complaining of anything but weakness, and always perspiring as much as usual. My mother had to change my flannels twice every night, as they were perfectly soaked. During my sleeping time I was talking the greatest nonsense possible. I was then for a good while trying many things, and giving a due trial to each, but nothing did me any good. I got then, from the doctor's orders, to take codliver-oil, which made me bring up a quantity of blood; this was the commencement of a long course of ejections from the lungs. I have brought up many times more than a pint at once of clear, red blood. Great nervousness was caused by these vomitings; this was to me the most painful symptom of my case. I at length found an effectual cure for the time, which was the infusion of red roses, taking a glass three times a day. This always put a stop to the sickness. I never got much medicine from my doctor, but was blistered to an awful extent. I got from a minister a prescription, which did me great good. I took this up to the time I got your book, when it struck me that I would write to you and get your advice, which you very frankly gave, and sent me some medicines. I paid the most particular attention to your directions. I was able to occupy the situation I now hold, however, before I wrote to you, which was never expected I should be able to do. Those who were strangers here thought I was hastening fast to my grave, whereas I myself thought I was a new man. I took your medicines for a fortnight, when I thought I felt a difference in getting up the expectoration in the morning, and in three weeks I felt a decided difference. In four weeks I could expectorate without coughing at all, and the expectoration gradually diminished. I then got another course of medicines from you, though I had no occasion to take all. I got quite careless about taking anything. Before I got your medicines my bowels were never regular, but after I got them they acted every day. My appetite became good, and still remains good. I am not particular about what food I get, for all kinds of food I can eat. Before I got your medicines, I had a course of chamomile flowers and white ginger and essence of peppermint, which altered my urine, and improved it very much. If you have any injunctions to give me for the purpose of preserving my health, I shall be most happy to adopt them. May I ask your advice as regards my going to Ceylon, in the East Indies? I have a friend there who is extremely anxious for me to go. Perhaps you will send me word. Yours truly,

JAMES CLARKE.

Nairn Station, 21*st September*, 1857.

PORTRAIT OF ADAMS,

ONE OF THE SIGNERS OF THE AMERICAN INDEPENDENCE.

From the Troy (America) Daily Times, Sept. 9.

"THE Venerable Rembrandt Peele, of Philadelphia, now in his eightieth year, is sojourning near Boston. This distinguished artist is the only painter now living to whom Washington sat for his portrait. Mr. Peele's first visit to Europe was made in 1800, when he painted Thorwaldsen."

The above Rembrandt Peele is the son of the late celebrated Charles Peele, of Baltimore, who held General Washington in conversation, while his son painted his portrait—that portrait we saw in Mr. R. Peele's studio, in Philadelphia, in 1854. We have the full-length portrait of Samuel Adams, of Boston, the seventh signer of the American Declaration of Independence, in 1776, painted by Charles Peele, which we took with us to America, in 1854, and which was at once recognised by his son Rembrandt, painted when he was a young man, and which was seen in Philadelphia by a large number of artists, along with Mr. R. Peele. The above painting may be seen by any of our friends that will call at 24, Montague-place, Russell-square. The painting was considered, in America, one of old Charles Peele's best productions.

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NOTICE.

In consequence of the rapid sale of Dr. COFFIN'S "Treatise on the Diseases of the Generative Organs," the price in future will be only 1*s.* 6*d.*, so that the work will come more within the reach of the working classes.

NOTICES TO CORRESPONDENTS.

POST-OFFICE ORDERS and all communications for goods, &c. to be addressed to William B. Ford, 134, High Holborn.

All letters should be addressed, "To the Editor of the Botanical Journal, 134, High Holborn."

The real name and address of the writer of a letter must be given in confidence.

The Botanical Journal and Medical Reformer is published Fortnightly, at No. 134, High Holborn, London, where all orders must be addressed.

COFFIN'S
BOTANICAL JOURNAL
AND
MEDICAL REFORMER.

"Human experience, which is constantly contradicting theory, is the great test of truth."—Dr. Johnson.

No. 247—Vol. VIII. SATURDAY, OCTOBER 31, 1857. Price 1d.

DEFEAT OF THE MEDICAL BILLS

In the House of Commons last Session, and Death of the Sale of Poisons Bill in the House of Lords.

We some time ago wrote the obituary notice of the Medical Bills in the House of Commons, and promised our friends that we would, in a future number of the Journal, give the reasons for the same.

There has been for several years a determination, on the part of the faculty, in some way, to put a stop to our encroachments on what they deemed their vested interests in the administration of medicine. Meetings were called in different parts of the country, and every means devised by the strong hand of power, to put us and our numerous agents down. First it was thought it might be done by coroners' inquests, and the aid that might be rendered by the press; but finding that no case of conviction followed the partial inquiries by the coroner and his sometimes *packed juries*, they then resolved if possible, to call in the aid of Parliament. Accordingly, in 1854, a Bill was introduced, and, although strongly supported by the faculty, yet it was thrown out by a majority of forty-five. Nothing of any importance was done, after the above defeat, until last year, when they again marshalled all their forces to get a Bill through the last Parliament, and Mr. Headlam was again induced to prepare a Bill, which, if it had passed, would have greatly interfered with the rights and interests of Medical Botanists. As the most of our readers are acquainted with the nature of the Bill, which was to allow only those who were registered or *numbered*, to practise medicine, and those only could be registered who had received a diploma from some of the authorised schools or colleges—so that *all* our friends, or nearly all, would have been obliged to shut up their shops, and those who were in the habit of receiving their medicines and relief, would be compelled to turn again to the legal faculty. To prevent so monstrous a monopoly, we, in our humble capacity, did what we could by corresponding and giving such information to some of the members as would shew the extent of our usefulness and claims. In this we were supported by our able representative for Finsbury, T. S. Duncombe, Esq., who, during his whole career, has shewn himself the friend and advocate of the rights of the people and true liberty; and when the Bill of Mr. Headlam was brought up, made the following remarks, which from us require no comment:—

"Mr. T. Duncombe could not understand the argument of the honourable member for Oxford, that they were to consult the dignity of the profession, as his idea was, that they were sent to Parliament to deliberate upon what might be for the welfare of the public at large. Certainly, as concerned their own dignity, it had never been better consulted in medical matters than on that occasion; for, on looking to the paper, he saw first the Medical Profession Bill No. 1. What had become of the Medical Profession Bill

No. 2 he knew not; but perhaps it had taken the wrong medicine and was unable to appear. (Laughter.) The next was the Medical Profession Bill No. 3: and after that they had the Vaccination Bill, which was intended to repeal the Compulsory Vaccination Act, which had been smuggled through the house in 1853—in fact, to take the Parliamentary lancet out of the unwilling arm of the nation. (Laughter.) That was not enough in the way of physicking the house—(renewed laughter)—for they had also the Bill brought in by the honourable member for Cork, called the Medical and Surgical Sciences Bill. In fact, they only wanted the Sale of Poisons Bill, which was floundering its way in another place, to complete the list, which was appropriately closed by the order for the second reading of the Burials Bill. (Great laughter.) They already had a State religion and a State education, and it was now proposed that they should also have State physic. He was determined to vote against both Bills. He would join the friends of No. 3 in their endeavour to defeat No. 1; and, as some requital, he should then help the friends of No. 1 to throw out No. 3, for they were not the reforms the people required. They wanted to see all the members of the medical profession, after they had gone through a qualifying examination, placed upon an equal footing. The Bills before the house he considered as an interference between the public and their medical advisers. As regarded the medical corporations and the universities, they had obtained their exclusive privileges under circumstances which were not adapted to the present times; and as in the reform of the House of Commons they had done away with Old Sarum, so in medical reform they should not respect those obsolete institutions. It was said that they should do away with quackery in medicine; to that he had no objection, provided they did not attempt to do it by legislative quackery. Now, he found that those medical bodies, which they were told had done so much to advance the profession, had at all times impeded the march of science. They persecuted the man who invented the tourniquet, and the College of Physicians got Dr. Groonvelt, who first applied cantharides to the cure of dropsy, sent to Newgate. After all, as Dr. Carlisle in his lectures said, medicine was an art founded in conjecture and improved by murder. He would, therefore, until some better measure of medical reform was proposed to the house, leave the College of Physicians and the College of Surgeons to operate on and prescribe for each other, and the Society of Apothecaries to drench them both. (Laughter.) He was opposed to the registration of the members of the medical profession, and he thought they degraded themselves to the rank of hackney cabmen in asking for it, and so condescending to wear a badge. Could anything be more insulting to them than such a state of things as that in which the patient would say to his servant, 'I have got a colic; run out and bring me in No. 1,145,' and in which the servant would return and say, 'I cannot find 1,145 upon the stand, but have brought you 1,146.' (Laughter.) He had great pleasure in opposing both measures."

The Member for Oxford, who so strongly urged the necessity of preserving the dignity of the profession, and "maintaining a professional aristocracy," was, a few days after, unseated for bribery.

The above debate took place on Wednesday, the 1st of July, on which occasion Lord Elcho, who had introduced "Bill No. 3," that Mr. Duncombe alludes to, said he considered *his Bill dead;* and the following Wednesday Mr. Headlam *withdrew his;* and thus ended the combined and mighty efforts of the doctors with the Medical Bills of the House of Commons.

It was also thought that there was one other way to reach us and our friends, and that was, to take away our strong arm of help—Lobelia. A bill was introduced into the House of Lords by the Lord President of the Council called the "Sale of Poisons Bill," and such representations was made to the noble lord, that Lobelia was classed with the poisons, our friend Mr. Duncombe was again at work, and immediately called on Lord Granville and informed him Lobelia was not poison. Professor Taylor was referred to, and asserted positively that *Lobelia was poison.* Mr. Duncombe replied that

he knew it was not. Professor Taylor said he should not like to see him take half an ounce of the leaves! Mr. Duncombe replied, he *had taken it, and with a good effect ! !*"

Lord Granville then inquired of Professor Taylor "if there had been any convictions from its use?" when Dr. Taylor said, "Yes, several in the North!" The above conversation was communicated to us by Mr. Duncombe, when we wrote the following letter to Lord Granville:—

"24 *Montague-place, June 5th*, 1857.

"To Earl Granville, Lord President of the Council.—My lord,—Your lordship, in the introduction of your Bill on the Sale of Poisons, has introduced Lobelia as one of them. Lobelia, my lord, is *not* a poison in any manner; and I am sure that if your lordship was as well acquainted with its sanative effects as those who have used it, you would at once have expunged it from your list. Lobelia, my lord, is considered by tens of thousands of families in Great Britain as one of the best and most certain remedies to remove disease in many forms; and with those families, and those who are acquainted with it, is considered a household medicine, and there is not one instance on record of its having done harm. T. S. Duncombe, Esq. M.P., has informed me that Professor Taylor, yesterday, not only declared it poison, but to your lordship's inquiry, stated that several cases of conviction for manslaughter had occurred from its use in the North. I beg in reply to repeat my statement above, 'There is not one instance on record of its having done harm.'

"With a hope that your lordship, with your usual regard for the rights and privileges of the people, will make a searching inquiry into the effects and benefits of Lobelia before you pass a law which would so materially affect the wellbeing of a large body of the inhabitants of this realm, my lord, I have the honour to be, your lordship's humble and obedient servant, A. I. Coffin, M.D.

"Earl Granville, &c., &c.

"P.S.—I have written a letter to Dr. Taylor, a copy of which I have inclosed; also I have accompanied this letter with one of my works, partly on the effects of Lobelia, which I beg your lordship to accept."

We also wrote the following letter to Professor Taylor:—

"*June 5th*, 1857.

"To Professor Taylor.—Sir,—I was last evening informed by T. S. Duncombe, Esq., that you stated to him, in the presence of Lord Granville, that Lobelia is a poison. Now, sir, that statement is either true or false, and its truth or falsehood involves the interests of a large number of the people of this country, for there are tens of thousands of families now using it as a household medicine; and the object of my writing to you is, to ask you for your proof for your assertion to Mr. Duncombe. Have you ever taken it? have you seen its effect on others? have you analysed it? And also to ask you in what portion of the North convictions for manslaughter have occurred.

"I declare to you that *Lobelia Inflata* is not poison, in any quantity or under any circumstances, and as I believe your object to be the investigation of truth, I now state to you that I am willing to submit to any test or investigation you will propose, either in taking it myself or administering it to any animal.

"With this declaration from a man who has used Lobelia Inflata in all forms of disease, from thirty to forty years, I beg you will not commit yourself in your testimony before an examination. I am, sir, yours obediently,

A. I. Coffin, M.D.

"To Professor Taylor."

Dr. Taylor did not think proper to answer the above letter, notwithstanding we had given him the credit for having truth for his object, and even after this, before the Committee of the House of Lords, declared Lobelia was poison!! Professor Calvert, of Manchester, was also examined before the Committee, and with that noble and generous regard to truth, gave the following answer to the question proposed by Lord Granville:—"Do you consider Lobelia to be a poison?" Professor Calvert: "It is very doubtful. I had a case of a woman, near Oldham. This woman was complaining of a violent pain: one of the herbalists went to her, and gave her a dose of Lobelia, but it was mixed with too large

a dose of cayenne pepper, and the poor woman staggered for half an hour and died. Her stomach was brought to me, and I examined it. So little was known of Lobelia, that I got some Lobelia and gave it to dogs, and gave *it in large quantities, but the dogs did not die; so that it is very doubtful whether Lobelia is a poison!* The amount of information which we possess upon it scientifically, is so very limited, that I am not satisfied in giving an opinion. It is *toxical* (poisonous), but its influence is limited. It is used a great deal by the herbalists; it is one of the favourite medicines!"

In consequence of the above testimony, and another interview Lord Granville had with Mr. Duncombe, on which occasion Mr. Duncombe declared to his lordship, that if they retained Lobelia on the Bill, and that Bill was brought into the House of Commons, he should, in his place, shew that their lordships were totally ignorant of it and its effects, that Lord Granville came to the conclusion to have it struck off. And thus ended the whole affair.

We cannot, however, pass over the candid and straightforward testimony of Professor Calvert, without drawing the contrast between that and Dr. Letheby of this city, who swore that "fifteen grains would kill any one;" as also that of Mr. Pierson, of Maryport, who also, under oath, in the trial of John Wood at Carlisle, told the judge and jury, that he had killed several animals with it, *even a hedgehog!* And now, as late as the 19th June, 1857, Professor Calvert, before a Committee of the House of Lords, declares under oath, that "the amount of information which we possess upon it scientifically, is so very limited, that I am not justified in giving an opinion!" He also says, he "got some Lobelia and gave to dogs, and gave it in large quantities, but the dogs did not die." No; we should think not! for at the present time we have a Newfoundland dog, seven months old, who has had given to him daily, for the last three months, two five-grains Lobelia pills to keep *him in health!* and we should like some of those who believe Lobelia to be poison, to call and see the animal. Our friends will see, as we mentioned in a former letter, that we were not idle, and that our united efforts have again foiled the enemy—that if our friends stand united (as we have gained more strength), we have nothing to fear for the future. We have not yet heard that it is the intention of the faculty during the next session, to make another effort. Lord Elcho, the day Mr. Duncombe made the above speech, promised to bring in another Bill next session; but whether he does so or not, the principles of liberty and equal rights are so well diffused through our favoured land, we shall rest satisfied, that no law will be passed to favour the few that will curtail the rights of the million. Mr. Thomas Duncombe deserves the thanks and the gratitude of every friend of liberty, and every Medical Botanist in particular.

24, *Montague-place, Russell-square.*

ACCIDENTAL POISONING IN DURHAM.

One of the most distressing cases of accidental and fatal poisoning which ever occurred took place in the above city on Monday morning, the 28th of September. The unfortunate sufferer was Mrs. Trotter, the wife of Mr. John Trotter, M.D., a physician of many years' pratice in Durham and its neighbourhood, and who, in fact, is well known throughout the whole of the county. Mrs. Trotter had been for some time in a weak and fragile state of health, and it appears on Wednesday week had suffered from a severe neuralgic affection with which she had frequently been troubled on previous occasions. Mr. Trotter gave her some medicine and used some external applications. These not causing the desired relief, the doctor had some conversation with Mr. Robson, surgeon, of the city, respecting external applications for the affection; and one preparation suggested had for one of its ingredients tincture of aconite. That occurred on Friday, the 25th ult., and Dr. Trotter on that day procured at the chemist's shop of Mr. Trueman, a liniment containing aconite. The liniment was applied, but it did not seem to have the desired effect; and on Sunday, the 27th ult., the affection still continuing, Dr. Trotter went to the surgery of Mr.

Robson, with the intention of procuring tincture of henbane, for the purpose of administering it to his wife. What conversation passed in Mr. Robson's surgery was not heard by any witness. Dr. Trotter solemnly states that to the best of his belief he asked for tincture of hyoscyamus or henbane. Mr. Robson as solemnly avers that the doctor asked him for tincture of aconite. At all events tincture of aconite was supplied to Dr. Trotter, by whose directions thirty drops were given to Mrs. Trotter on the same morning by the doctor himself. Mrs. Trotter shortly afterwards suffered from a desire to vomit. Dr. Trotter said he was convinced the henbane had not caused sickness, and imagined that it had been caused by a fever mixture which she had taken on the previous night. He left about eleven o'clock in the morning, and was absent till six o'clock at night. On his return at the latter hour he was informed by his daughter that Mrs. Trotter had been sick, but was considerably better, having had two intervals of repose of about two hours each—circumstances which were particularly noticed for the reason that Mrs. Trotter had not slept for some nights before. As the supposed tincture of henbane apparently had the effect of relieving Mrs. Trotter, her husband suggested to her at bedtime that she should take a further dose, and by his directions, his daughter mixed thirty drops of the tincture in a little water with soda and sal volatile. The preparation was duly taken by the unfortunate lady from the hands of her daughter. About an hour afterwards, Mrs. Trotter called her husband, and said the henbane had made her fall sick again. The doctor administered ipecacuanha, a second dose of which caused the sufferer to vomit. Mrs. Trotter shortly afterwards suggested to her husband that there might have been some mistake respecting the tincture, and the doctor, though convinced that such could not be the case, at once proceeded to Mr. Robson's surgery, about a third of a mile from his own residence. He saw Mr. Robson, and said, "Was that tincture of hyoscyamus you gave me or not?" and to his utter horror, was informed that it was tincture of aconite. Mr. Robson gave Dr. Trotter the proper antidote, and the latter immediately returned to his own residence. He found Mrs. Trotter much worse, and, despite the application of the antidote and of brandy, the unfortunate sufferer gradually sank and died.

Dr. Trotter is universally reputed to be one of the most careful and particular of medical men, and Mr. Robson, though comparatively speaking, a younger man, has the reputation of being a careful and attentive surgeon. That poor Mrs. Trotter's death occurred from the purest accident is indisputable, and the only unaccountable circumstance in this melancholy case is, how the sad mistake which cost that lady her life arose.

The warmest sympathy has been evinced for Dr. Trotter and his family, who are deservedly held in high estimation in this locality by all classes. Dr. Trotter is universally respected and his family are influentially conected throughout the county. Mrs. Trotter was, we understand, a most amiable woman, a sincere friend, and as regarded her family, self-denying to the uttermost degree. The unfortunate lady was sixty years of age. This sad affliction has nearly prostrated several members of the family, but these are particulars upon which we desire not to enlarge.

An inquest was held to inquire into the cause of the death of the deceased, and evidence adduced; but the case being too long for insertion in our columns, we give merely a summary of the facts, referring our readers to the papers for full details.

Mr. Robert Naisbett Robson, surgeon, Durham, sworn, said:—"Dr. Trotter called at my surgery on Sunday morning, and asked me for some tincture of aconite and a belladonna plaster, which I gave him. The doctor again called in the middle of Sunday night, and asked me whether I gave him tincture of hyoscyamus or henbane. I replied, 'Tincture of aconite.' Dr. Trotter asked me what was to be done, as he had given Mrs. Trotter thirty drops (the greatest dose which ought to be given being three drops). I then gave him an antidote (spirits of ammonia), with which he went away." Questions were put to the above witness by the coroner at the suggestion of Mr. Robert Fawcett, brother of the deceased.

Mr. Frank Greenwell, winemerchant, was examined, and both gentlemen's evidence corroborated the carefulness of Mr. Robson in this truly unfortunate affair.

Dr. Trotter was then sworn and examined—he states as follows:—"I called upon Mr. Robson on Sunday morning and asked him for some tincture of hyoscyamus and a belladonna plaster. Mr. R. gave me what I thought was tincture of hyoscyamus, and began to make the plaster. I put the bottle in my pocket, and felt as convinced that I had got the tincture of hyoscyamus as that I am alive at this moment, and could have taken a dose of it at any time. I gave my wife thirty drops, which made her sick: I left the medicine standing on the dressing-table, which I certainly would not have done had I thought it had been aconite. I then went from home, and returned at six o'clock in the evening. At bedtime Mrs. Trotter had thirty drops more. In the middle of the night Mrs. Trotter was again taken sick, and wished me to see Mr. Robson, as she feared there was some mistake. (Dr. Trotter then described his interview with Mr. Robson.) On going back, I found Mrs. Trotter much worse. I got as much brandy and ammonia in as I could, but without effect, and she gradually sank and died. The immediate cause of her death was *tincture of aconite*."

The coroner carefully summed up, and the jury, after a short deliberation, returned the following verdict:—"The jury are of opinion that Mary Ann Trotter came to her death, on the 28th of September, from the effects of *tincture of aconite*, administered by mistake, but how the mistake occurred there is no evidence to show."

Among the numerous cases of accidental poisoning which have happened, and which of late have been, we grieve to say, comparatively numerous, not one has taken place that has been attended with more distressing and harrowing circumstances than the above. A beloved wife and mother, one who had fulfilled all the onerous duties incidental to such a position with exemplary energy and affection, through a long series of years, and no doubt hoping to spend the remainder of her time on earth in that enjoyment, happiness and peace of mind her virtues deserved, has been suddenly deprived of life.—How?—By poison.—By whom administered? Alas! by the unconscious agency of an affectionate husband and daughter, the poison being procured from one of the faculty, the poison being tincture of aconite, and not, as was expected, tincture of hyoscyamus.*

Our summary of the evidence, as well as the remarks prior to it, proves that both Dr. Trotter and Mr. Robson are characterised as gentlemen known to be exceedingly careful in all that pertains to their profession. To what cause then can we attribute this heartrending occurrence? *To accident and mistake.*—Should such a mistake have occurred? Certainly not. Why then did it?—The cause is obvious enough. The most deadly poisons are used in prescriptions by the faculty; druggists and dispensing chemists are hourly employed in making mixtures prescribed by medical men, containing these deadly ingredients. This could not be were poisons not kept, or, if kept, not used as medicines. Why then do doctors and surgeons prescribe, and druggists make them up? Because they have been educated in a certain system, that stamps the poisons as not only the most efficacious remedies, but possessing the highest curative properties. They call disease a poison; consequently they give another poison to expel it. And what is often the result of this practice? A disease is produced by the use of these poisons, worse in its effects than the one eradicated by their employment.

Is this (I would ask) sound practice—practice in accordance with common sense—to expel one poison by administering another? Most assuredly not. Again: however partial the majority of the faculty may be to prescribe for their patients (no inappropriate name, it must be allowed), they will very seldom, if ever, take their own prescriptions.

How often does it happen, that if a medical man becomes ill, he sends for a brother practitioner! Having no confidence in his own skill or experience, he

* Aconite (monkshood) is an acrid-narcotic poison; and hyoscyamus (henbane) is a narcotic poison.

sends for another, hoping perchance he may be restored by his, which is but at best a modification of the same practice. In the one case he knows too well the deleterious nature of the medicines he is in the habit of giving, to take them himself; yet, because he is not cognizant of any other method, he resorts, in the second place, to the experience and practice of another for relief.

Medical Botany is nearly a dead letter to them, and the knowledge of herbs scarcely thought of in their studies. Their practice is involved in doubt and uncertainty, and medicines are often given more by way of experiment, than from any actual knowledge of their effects.

It is the system of dispensing poisons so frequently that has been and is so fraught, directly and indirectly, with such baneful consequences to society. Could the chambers of the sick and dying give up their secrets, what a vast amount of the direful effects of the poisonous compounds, given under the influence that they possess the highest sanatory qualities, would they unfold! Picture to yourself the anguish of a husband bending over the dying form of his young wife, one in whom was garnered up all his joys and hopes of earthly happiness. Imagine the widowed mother hanging in silent agony over a dying son, the only survivor of her family, the prop of her declining years—one in whom all her hopes, her prospects, her well-being are centered—irretrievably lost. Regard an agonised family standing by the deathbed of one who has been the tender wife, the affectionate mother—all, all destroyed by that insidious assassin, poison, administered by those who ought to know better—by those whose duty is to cure—by those who are or ought to be or have the reputation of being educated solely to prescribe the healing balm in sickness, and not the poisonous compounds so much in use by the college-educated, diplomatised members of the faculty.

These observations do not apply to all, for we are happy to say there are now many medical men, of highly intellectual minds, who have abolished the use of poisons, and become converts to Dr. COFFIN'S system, covertly making it the general rule of their practice. This speaks volumes for us. Yet we are compelled to state that many, very many who are aware of their noxious nature still use them, because they are wedded to the system, and would deem it inconsistent to depart from the poison practice. But should human life be imperilled simply for the sake of consistency? Most certainly not! Yet, should death ensue by the use of improper medicines given by a member of the college, he is entitled to give a certificate of death, specifying the disease under which the patient laboured, and there is, if not an honourable, yet a legal end to the matter.

So much, at present, as respects the poison system so much in vogue. We will now draw the parallel between that abortive system and the health-giving system of Botanical Medicine first brought into this country by Dr. COFFIN, and practised by his numerous agents, which, in spite of all slanderous opposition—having the whole weight of the regularly educated members of the faculty, with all their prestige, with all their learning and standing in society arrayed against it—has progressed—is rapidly progressing—is daily gaining ground, and will stand forth proudly and pre-eminently in the face of all opposition.

AND WHY? Because, first, the system acts in accordance with nature, assisting her in her efforts to throw off disease by subduing its virulence—warming, comforting and solacing the sufferer—acting diametrically opposite to the lowering and depletory measures so much in use by the allopath, which acts against nature, paralyses all her efforts, and prostrates what little strength the sufferer has remaining.

Because, secondly, we repudiate and utterly cast out of our practice all poisons, whether mineral or vegetable; we will have nothing to do with them; they are altogether out of our books and are discarded *in toto*. We can do more without them than the faculty can do with them, for it is an indisputable fact that we have restored hundreds, nay thousands to health after being given up by the regular practitioners. Truth needs no extraneous embellishment: the facts speak for themselves: what it is possible for human aid to accomplish, that we can do and have

never failed. Can the faculty say as much? We unhesitatingly say, No! and dare them to the proof.

Because, thirdly, should such a mistake in our practice occur, which has brought such an amount of misery upon Dr. Trotter and his family, what would be the result? Not the least prejudicial effects would be developed. Our medicines are innocuous, always assisting, never thwarting nature; the greatest possible mistake that can by any amount of carelessness be made would be to give an astringent instead of a purgative or laxative; and what would be the consequence? *Not death*, not an *increase* of the *virulence* of the disease, not even the least inconvenience to the patient, they acting only in accordance with nature's laws, for our astringent medicines act upon the solids, without the least binding effect upon the bowels, and if taken when nature does not require them, their curative properties lie dormant, their health-giving principles are only evolved when disease takes place, *that* being the *stimulus* to their action. Can this be said of any or the whole host of the medicines usually given by the faculty, such as antimony, iodine, calomel, nitre, ammonia, compounds of lead, hyoscyamus, aconite, opium, potash, with numerous others, which the faculty are constantly prescribing? Most certainly not. The faculty are fully aware of the pernicious nature of the above poisons too well to trust themselves within the sphere of their action, though they have no objection to treat their patients to them, and that with no unsparing hand. They are in doubt and uncertainty as to their practice, and without directing their attention to and studying ours, ignorant of the beneficial operations of our system, through the blinding effects of prejudice and ASSUMED contempt, they seek to *cover* their destroying practice by *decrying* ours, as if such a plea were sufficient fully to excuse their own; but we are "armed so strong in honesty that it passes by us as the idle wind which we regard not." For this purpose they have run such a determined tilt against two of our most potent medicines, that thousands have owed their *life* to—medicines that, like *mercy*, are twice blessed, "blessing them who give and them who take." These medicines are cayenne pepper and Lobelia Inflata.

To the thousands who are acquainted with the inestimable properties of these invaluable herbs, nothing we could advance would add to their estimation of them: to those who are not, a brief enumeration of their qualities we think will be acceptable. And first of cayenne pepper. It is a *pure* stimulant, without any narcotic or intoxicating properties; can be efficaciously applied in every disease in which a stimulant is required; it is prompt in its action; it equalises the circulation, obviates congestion, arrests hemorrhage, relieves inflammation, excites and promotes perspiration, and in all cases acts in perfect *harmony* with the animal economy. It prevents flatulence, increases the digestive power, is very advantageous in gout, paralysis, fevers and malignant sore throat.

Now for Lobelia Inflata. It is one of the most powerful yet innocent stimulants ever discovered and introduced into the human system. It acts specifically upon the liver, stomach, lungs and intestines—is unequalled for female complaints—and in labour its administration has saved both mothers and children, when the doctors declared that the use of instruments was inevitable, and that too with very little pain or difficulty. In extreme cases of fever, particularly typhus, Lobelia is a most powerful agent conjoined with other stimulants. As an emetic it does not corrode the stomach, produces no disease, irritation or inflammation of the mucous membrane of that organ, and its most remarkable quality is, *that it never operates upon those who are in health.* Can this be said of the poisons so imprudently, so unwisely dispensed by the faculty? It cannot. Will their much-praised calomel, hyoscyamus, antimony, opium, act thus harmlessly? Decidedly not. Our conviction therefore is, that poisons ought entirely to be cast out of every system of medicine, and ought not to be made use of under any circumstances, either by the skilled or unskilled. In fact, it appears that greater harm has been done by their use in the practice of the skilful than by the unskilful, and no drug should be used that is calculated by an

overdose to produce disease and death; nor can such drug be, by any process of reason, turned into a salutary medicine for the restoration of health.

In conclusion, we would earnestly enjoin our readers seriously to ponder over this subject—give what has been advanced their serious consideration, to implant in their memories the facts we have brought before them, and then say whether they will run the hazard of being poisoned by the destructive drugs, &c., or have their health renovated and restored by the Botanical System of *herbal medicine*, introduced by that benefactor of mankind, Dr. COFFIN.

ON MEDICAL PRACTICE, ANCIENT AND MODERN.

(Concluded from page 95.)

LECTURES may be useful by establishing an elevated standard of professional excellence, by inspiring a love of fame and a professional feeling, by directing the labours of the student, and animating his progress; but the variety and extent of the sciences subsidiary to medicine, are too great to admit of any plan of *oral* instruction supplying the place of patient investigation in the steady and unremitted labour in the field of observation. "It requires," adds our author, "a well regulated mind, with a considerable degree of information, to hear lectures with much advantage under any circumstances; therefore without this preliminary knowledge lectures in general are comparatively useless. To corroborate this, let us take a glance at the usual education, &c., of the candidate for medical honours. He is first articled to a member of the faculty, his principal enjoined employment consisting in making up the several prescriptions; during the latter part of his time (especially if in the provinces), he is allowed to visit patients and report progress. If the youth be fond of study, he obtains some theoretical information; though the majority of young men are not overfond of study. He then comes to the metropolis, possibly with the best intentions, to study and avail himself of that vast fund of information to be obtained in London. But, alas! more particularly if from the country, the change is so great—so many objects of admiration present themselves to his bewildered mind—so many temptations constantly assailing him—every allurement winding its deceitful folds around him—his good intentions are given to the winds—his attendance at the lectures and in the dissecting-room voted a bore—gets linked in with other students, who glory in making him one of themselves, and in introducing him to dissipation and sensuality, to which he devotes those precious hours that ought to be employed in study, and in digesting what he has practised in the dissecting and heard in the lecture room. This being the case, he is obliged to go under the grinding system: he procures the necessary documents of his attendance at dissection and lectures, and, by dint of hard grinding, fortunate y passes the college, obtains his diploma, is dubbed one of the faculty, and commences practice. Now what an oracle of science must this young man be, whose natural talents have been obscured by the course he has taken, who has never acquired habits of close thinking, or arranging his ideas with accuracy upon any subject! and yet what a large class of young medical practitioners does my sketch portray and include!"

Medical colleges may elevate an apparent standard to the height of their proud ambition and imperious folly, but men who have not a natural taste and genius for medical pursuits, will never attain to any extraordinary perfection in the healing art, be they ever so studious. Cash, friends and a fortunate combination of incidents may give a dullard blockhead a nominal elevation to the high standard of imaginary excellence, prescribed by pompous professors, and their deluded patrons, but can never infuse intelligence, genius, or aptitude of mind for scientific attainments, into a stupid, dull-brained lad, on whom Nature has inflicted an intractable, drowsy indocility: education cannot rouse nor professors lecture his sluggish intellect to the lofty summit of genuine professional eminence.

The genial current of the human mind will flow in the channel that nature has prescribed, and is not easily diverted from its course, when any one branch of science is urged upon a youth, for which he has

no natural aptitude, but rather an inherent, settled aversion, inwrought, in the very rudimental stamina of his mind. What perfection can we expect from such perversion of nature? Whatever of genius the individual might have originally possessed, the erroneous direction of intellect, in the development of its powers, will give to the mind a resemblance to plants whose growth has been forced in a hothouse, that never acquire that delicious flavour, that peculiar excellence, which distinguish those that come to maturity in the open atmosphere, according to a regular course of nature.

The philosophy of the human mind begins to arrest the attention of those who are unwilling to take everything upon trust. The embryo motions of a gigantic mind may often be detected in obscurity, poverty, and desolation, which only needs management, cultivation, and improvement, to rear the possessor to the highest degree of moral and literary excellence. On the other hand, how often do we see wealth and affluence conferred on families where mental abilities have been bestowed by mother Nature with a sparing hand! These facts must be fully understood, and genius, aptitude of mind to the acquirement of useful knowledge, be duly appreciated, before the standard of scientific knowledge, particularly of medical education, can be successfully reared far beyond the level of the present period.

Merit alone should *command* our respect. Colleges have erected a false, delusive standard. This is a fact in relation to medical science, that does not admit of honest contradiction. Shall medical colleges and universities, engaged in perpetual warfare among themselves, imagine they can command the confidence of the world? They everywhere condemn and oppose each other, and will they call us to rally round some imaginary standard obsequious to their dictation? Will they call us, the professors and practitioners of Dr. COFFIN'S system of Botanical Medicine, who, within the last few years, have performed the most astonishing cures, when all the talent, energy, and experience of the diplomatised, college-educated medical men, have signally failed, and given up the case as hopeless? Will they call on us, the recipients of the curative powers of Dr. COFFIN'S system? *Let them call.* Medical Botany has deafened us to the voice of the college-educated charmer, charm he ever so learnedly.

TO THE NATIONAL ASSOCIATION FOR THE PROMOTION OF SOCIAL SCIENCE.

On the Function of Government in relation to Public Health.

IT having been advertised, that a number of scientific men, with Lord Brougham at their head, would meet in Birmingham for the purpose of considering subjects that would most promote social science, and as we considered our system and its effects on mankind to come within its scope, we invited a few of our friends to form a committee, and send to the above congress a paper to be discussed. Mr. Stephens, of Radcliff-highway, reported a paper, and it was resolved it should be sent; but as there were many of the most eminent of the faculty to be there, Mr. Stephens was informed by the Secretary that his paper did not come within the province of the association, and, of course, his paper was thrown out. No: it would not suit those, or at least some of those, who were there, to have discussed a system that so materially differed from theirs; notwithstanding, we claim to have the power to lessen the sum of human misery, to shed light to the millions on the important subjects of life, health, and disease. Mr. Wilks also produced a paper which we give entire, and which will speak for itself.

24, *Montague-place.*

In every department of social science, there is more fear of the Government doing too much than doing too little. Its interferences often does more harm to a good cause, than all the props which it brings forth to support it does good. No legislation can compensate for the want of knowledge, wisdom and virtue among the people.

The principal work therefore of Government, is to "*help the people to help themselves*," and not to do or think for them. Their office is *to support private*

rights, and settle private differences, not to say, "This idol ye shall worship, and none other."

The established religion of this country would not work, were it not for that liberty of judgment which is allowed to all dissenters.

Neither would the established system of *medicine*, but would become unendurably nauseous, were it not for the liberty allowed to all, to choose their own doctor or system of medical treatment.

This liberty should be guarded with care, and no board or commission of health, no medical bill, and no despotic enforcements against the rights of private judgment, or the responsibility of the natural heads, or leaders of families, can even be allowed to obtain in a really enlightened and civilised community.

To act upon the community at large by all the moral and intellectual forces of which it is capable, in educating the mind to a higher standard of health both in body and mind, is the duty of the NATIONAL ASSOCIATION, and with this view a few suggestions may not be out of place.

TEACH THE PEOPLE,

By pamphlets, tracts and lectures, delivered and distributed among them, the important laws of health, and their applications to domestic life.

Even a few *simple rules* hung up in their dwellings, would help materially to educate them in the knowledge of those laws, and how to detect and cure the first incipient stages of disease.

There may be suggestions for personal and household cleanliness, enforced by arguments drawn from the laws of miasmatic exhalations, and their operation in propagating and sustaining contagious diseases.

There may be suggestions given as to the cure of colds, which, though at first easily stayed, yet, when left or neglected, defies both skill and medicine: thus the victims of ignorance are left untimely to die, when a little knowledge would have saved them.

There may be also put into a small compass the general laws of health, and the certainty of every infringement of them being punished; that no act of excess, either in the *indulgence of the passions, or in strong drinks*, can ever pass without a weakened or diseased action in the grand economy of the body and mind.

Much has been done towards giving this knowledge to the people, and much good has been effected by the public lectures and teachings of Dr. COFFIN and others, who have taught a system of domestic treatment accepted and adopted by thousands, ay, by thousands even of that class which before never thought of health or disease but as the trade of the surgeon or physician, and with which they had naught to do, but quietly submit and be the passive subjects of their treatment or experiment.

Let the philanthropic part of the faculty do the same; let them write for the people, lecture to the people, and give them simple and plain instructions; then they need never be afraid of the competition of dissenting practitioners or of their teachings.

Until they do this, public faith will not be restored to them; but those medical men (though held to be illegitimate) will win public favour and esteem who, in defiance of the rules of medical etiquette, teach the people the best and quickest modes of avoiding and curing disease.

Even the Chinese give us a lesson in this respect: on their pillars and monuments are written, by the authority of the most learned of the land, the best known cures for specified diseases.

We do not say, Make all men doctors or teachers; but we do say, *That all women ought to be taught to be nurses, and all men taught the first principles of life, health and disease.*

IN SANATIVE ARRANGEMENTS

We should be careful not to run to the extremes of interference; especially should we look to the means of proposed changes, for people are justly jealous of the centralising tendency of recent legislation.

We pull down old streets and build new ones more grand and impressive to the visitor. We destroy the homes of the poor, and enlarge our workhouses and gaols. We destroy one locality, and, perhaps, recall it to civilisation; but we leave their wretched denizens to seek fresh haunts, and to congregate and

fester in still thicker crowds. We hunt out the poor from one place; still they must live. We hunt them on, and on; but, unless we can change and improve them, we only hound them into crime and penury, to fill both our workhouses and gaols.

The haunts of fever are the homes of the poor, where fever and cholera are nursed into giants, mightier than any in fable, and whose breath poisons the whole land, and from which the rich and poor alike suffer.

Macaulay truly says, "civilisation holds in its very midst, Goths and Vandals, worse than those which overran Gaul and Germany of old;" but the difference is, that the Vandal of modern society is made so by neglect and ignorance, and is now in his long-suffering, waiting for the sanitive missionary to raise him from his barbarism.

And though the mere teaching of the laws of life and health may not be able to remove the pauper and criminal population from amongst us, yet, according to the evidence of "great men and true," it would help vastly to make them more healthful and moral, would aid Christianity in its sublime mission, to soften and heal the woes of the world, and would, with the help of a well considered general system of education, help the aspirants of the hulks, and the feeders of the gaols, out of the gutters of filth and barbarism, in which they are allowed to grow up.

For what has been done, we should be thankful, but that much has only pointed out the road in which civilisation and improvement should travel, in the development of social science.

THE GOVERNMENT FUNCTION

Is not to prescribe what doctors we shall have when sick, not what system of medicine shall be adopted in private life; but, whilst facilitating the spread of knowledge, its duty clearly is, to leave this freedom of choice with the people themselves, without "let or hindrance." To educate, educate, educate, not the young mind alone, but the adult population, that their persons and homes may be improved, that the knowledge of the laws of health and social science, and that the simplest and best modes of curing disease in its first stages, be made known to them, so that the maladies which arise from among the sinks and cesspools of humanity, may be arrested, and the health of the community improved.

ANY GOVERNMENT ACT OR MEDICAL BILL

Which shall attempt to enforce uniformity of practice, is utterly vain, and would be opposed, not only by the enlightened philanthropist, but by large masses of the people, who, having tasted of the food of knowledge, will not throw it away for the husks of parliamentary interference.

Therefore, it is but due to the medical faculty themselves to warn, as well as to show them how they may legitimately improve their position, and hold that esteem and respect which their learning and position demand, *always remembering that their high position in society can alone be held* by the influence of their *character*, *devotion* and *learning*.

The honours and attainments of the faculty cannot be too high, and their generosity, self-denial, and endurance, standing, perhaps, highest in the professional scale, they will find that they will not need to be propped up by laws, which, whilst failing to protect or help them, will annoy and have a persecuting tendency upon all who conscientiously or scientifically differ from them.

Let not, then, the medical faculty be afraid to enter the field of public teaching, nor be above being tutors in the school of social science, and theirs will be the reward, in the blessings of humanity, in the approbation of good consciences, and in having a firmer hold upon the hearts of the people. S. W., M.B.

30th September, 1857.
25, *Cambridge-terrace*, *Dalston*.

SUBSCRIPTIONS
FOR THE BOTANIC HOSPITAL.

"For having raised our mother from death's door £1 0 0
"Another some future day."—J. K. P.

NOTICES TO CORRESPONDENTS.

We are unavoidably compelled to postpone to our next the article of our talented Agent, intituled, "Dr. COFFIN is right," &c.

The Botanical Journal and Medical Reformer is published Fortnightly, at No. 134, High Holborn, London, where all orders must be addressed.

COFFIN'S
BOTANICAL JOURNAL
AND
MEDICAL REFORMER.

"Human experience, which is constantly contradicting theory, is the great test of truth."—Dr. Johnson.

No. 248—Vol. VIII. SATURDAY, NOVEMBER 14, 1857. Price 1d.

ON POISONS AND THEIR COMPOUNDS AS ADMINISTERED BY THE FACULTY.

Though poisons have been largely treated upon in the 95th page of the first volume of our Journal, and those who have taken it from its commencement, being in a great measure familiar with the subject, yet, as many who have but recently become subscribers have not seen the article, we hope to be excused in again bringing it before the general reader, especially as the recently deplorable case of poisoning at Durham is before the public, and our remarks upon it before our readers. Our intention is not so much to repeat the article in our first number, as to present to your notice the poisons and their murderous compounds, their deleterious effects upon the system, and the diseases for which they are administered, and then showing our Botanical Remedies, in juxtaposition, with remarks, not only on their sanative qualities, but their impossibility to produce the least deleterious effects, either by giving overdoses or by their being the means of illness and disease in after life.

On this side you have the destructive legion of poisons, the grand remedial agents of the faculty.

Arsenic. A deadly poison.

Arsenious acid. A powerful caustic, producing the death of the part to which it is applied, which afterwards separate by sloughing; recently used with much success in Asiatic cholera. This is either *kill* or *cure* with a vengeance! and in the event of a cure (quere), what baleful effects does arsenic produce in the system, if cholera be expelled? Let the faculty answer this.

Antimony and its preparations. All poisons.

Antimonial powder, uncertain in its operation, employed in early stages of febrile diseases, inflammatory affections, chronic skin diseases; compounded with calomel and opium (both poisons) in acute rheumatism; calomel and Antimony are the chief ingredients in Plummer's pill—a sweating and alterative pill.

Tartar emetic produces sweating more

On this, the healing, health-inducing phalanx of our innocent and efficacious herbal medicines.

With our mode of treatment, in conjunction with raspberry-leaves, tormentil-root, bayberry, composition-powder, cayenne, lobelia, myrrh and valerian. See Dr. Coffin's "Guide to Health," page 279: he never lost a patient through cholera when called in sufficient time to operate.

Also the anti-cholera powder, which is a *specific* when taken according to directions.

Our composition-powder, in the early stages of disease, is amply sufficient, being an admirable and safe remedy in all cases, and promotes perspiration with certainty and uniformity. For other efficient diaphoretics, see Dr. Coffin's "Guide to Health."

Cayenne, black pepper, pennyroyal,

uniformly and certainly than any other antimonial preparations. If nausea is produced, it is an advantage, because it places the system in a condition in which sweating is more freely produced. The above is an indirect acknowledgment of the propriety of a part of our system, and by the faculty too: this speaks volumes.

Next comes the boasted panacea of the faculty, the *sine quâ non** of their practice, or rather its preparations, all of which are deadly poisons.

The fumes of Mercury inhaled produce the shaking palsy, and render the muscles of the arms, &c., powerless.

The most minute dose given to some individuals produces frightful salivation.

Many medical men insist upon salivation being necessary to develop the curative effect of Mercury. This is, surely, uncommonly pleasant. The effects of Mercury upon the system are horrifying; and notwithstanding its terrible consequences, it is prescribed and used by the allopaths for the cure of nearly all the diseases to which humanity is subject.

Mercury is an antiphlogistic, antisyphilitic, an alterative and a deobstruent. It is the most efficacious remedy of the faculty and does all that is stated—but, how does it act? Why, by prostrating the little remaining strength of the patient left by illness, and so overcomes disease. What consequences then follow? In getting rid of one disease has the patient been restored to *pure health?* The faculty are well aware of the direful effects of this their much vaunted medicine, but this *they very wisely for themselves keep in the back ground.*

Dreadful experience alone, often after years of apparent health, has made the recipient of mercurial treatment fully cognisant of its noxious effects upon the system; he finds his health ruined, himself a prey to unmitigated misery, without hope of recovery. The sad prospect of his remaining years about being spent as a confirmed invalid, and only bound to life by that mysterious tie "which makes us rather bear the ills we have than fly to others which we know not of," he exclaims with poignant anguish, "O this and others, produce sweating, uniformly and certainly.

Lobelia inflata produces every symptom of nausea required without the corroding effects of tartar emetic.

All the diseases which Mercury is prescribed for and used, can be, and are, cured by our system and Botanical Remedies.

We proudly ask the following questions.:—

Has DEATH in any one case been caused by our treatment and remedies?—We as proudly answer *No*, and dare the whole faculty to prove the affirmative.

Has *disease* ever been *induced* by resorting to them?—Again we answer *No.*

Has *disease* ever been apparently cured, the seeds of which have lain dormant in the system for years, and then broken out with increased violence? Again, *No.*

Did they ever induce palsy?—*No.* Were they in any instance the cause of making a confirmed invalid, or was it ever known that they, in curing a disease, *created* another either less, equal to, or worse than the one cured, all of which Mercury has done.

To this again we triumphantly answer *No!* and repeat the challenge.

Our remedies more immediately in opposition to Mercury are Lobelia Inflata and Cayenne Pepper.

"WHAT!" (I think I hear our opponents, and those who, through interest and ignorance, exclaim) "Lobelia and Cayenne again!" Yes, again and again. Why should they be less in our mouths than mercurial preparations in the faculty's. "True, but this iteration sickens us." *The poisons, we opine, would sicken you much more.* Besides, food, refreshment and bed are words constantly in use; why should not the repetition of those words sicken you? What these are to your bodies, those are to the extirpation of your diseases.

Having in our last number given the qualities and curative properties of Lobelia and Cayenne, we need not repeat them here: suffice it to say, they are as superior

* An indispensable condition.

Mercury, this Mercury! would that I had died of the disease, than thus to have suffered from the effects of its baneful influence." A corroborating proof of this is the case we are about to relate, which lately occurred.

to Mercury as the glorious sun is superior to the smallest asteroid.

Mr. ——, who has been married eight years, has a family of four children and lived temperately, sought our advice. He was intensely suffering from the worst stage of a very malignant disease: we interrogated him closely, but we could not obtain any clew as to the cause of his dreadful malady, till he informed us that prior to his marriage he became ill, and was to all appearance restored, having taken Mercury as the principal curative agent.

He was a most pitiable object, his strength prostrated, his body loaded with Mercury and covered with virulent sores.

In this case Mercury lay dormant in the system for upwards of eight years; the disease not being radically cured, but possibly kept in check by it till nature, unable to combat with their influence, gave way, the effects of the Mercury and the disease broke forth with uncontrollable violence, and one more was added to the innumerable victims of all-curing Mercury.

Opium, the next extensively used drug, a powerful narcotic poison, produces giddiness, stupor, depressed circulation and death.

On awaking from the sleep induced by Opium, nausea, headache, loss of appetite, &c., are very generally experienced.

The special uses of Opium in disease are so very numerous, therefore we can give only a concise account of the most important.

In fevers, Opium is principally used when great watchfulness and delirium are present; its effects, however, must be carefully watched *(here is a tacit admission of its dangerous qualities)*.

In eruptive fevers Opium is of much benefit.

In smallpox, great cerebral disturbance frequently comes on; and if Opium be not administered, death ensues.

In intermittent fevers, Opium given in large doses frequently arrests the paroxysm: but if any local inflammation or congestion is present, it must not be used *(here is another reservation)*.

In inflammatory diseases, Opium and calomel will often be found a useful remedy.

The faculty have divided fever into many distinct diseases, which is erroneous: fever, whether intermittent, typhoid, inflammatory or putrid, is one and the same thing in different degrees. See Dr. COFFIN'S most admirable article in his "Guide to Health," page 355, which deserves to be written in letters of gold—nay, adamant. Our system, in conjunction with our remedial agents, are specifics for fever in all its stages, as also for all inflammatory diseases.

For dysentery we give, with the greatest success, cayenne pepper, oak-bark, and raspberry-leaves, also bitter medicines compounded with stimulants.

For diarrhœa and common cholera, we give our anti-cholera powder, also composition-powder, lobelia, and a strong decoction of raspberry-leaves, tormentil-root, agrimony, and barberry-bark, with the like success.

Hydrophobia and tetanus are both cured by our system and Botanical Remedies, as well as spasmodic and convulsive diseases.

In acute rheumatism, in *some* cases given freely with the happiest results.

In acute dysentery, diarrhœa, &c., it will check the disease.

In delirium tremens, Opium is most to be depended on.

It is very beneficial in hydrophobia, and in some cases of tetanus.

In spasmodic and convulsive diseases, Opium is also a very important remedy.

From what has been above stated, Opium appears to be a first-rate curative agent in the hands of the faculty; *but what are its effects?* It is acknowledged, even by them, that it produces death (many cases of which are on record).

Its qualities are, first, stimulating (so far so good); but what follows? According to

the dose administered, depression of the vital powers, sleep, insensibility and death, though we meet with some individuals who are almost insensible to its action; while, on the other hand, it produces on others, even in small doses, a dangerous, stupifying effect. Again, what mother scarcely is there but can add her testimony to its direful effects upon the constitutions of her dear little ones?

Indeed, to sum up all, Opium ought to be wholly ignored and discarded from use under any and every circumstance.

Many of the Botanical Medicines we use are stimulating, being pure stimulants (that is), acting alone as stimulants, and no obnoxious effects can, by any possibility, accrue from an overdose.

(To be continued.)

THE GLEANER, No. 1.

We shall, in the course of a few essays or numbers, under the above head, give our readers some of the pleasure and satisfaction we have received from reading rare and valuable works. It is not good that the soul of man be and remain destitute of rational knowledge or intellectual cultivation and improvement. In reading a modern work "On the General Diffusion of Knowledge," we were highly gratified with the classic diction, moral beauty, philosophic excellence, and sublime simplicity with which the worthy author communicates his liberal and enlightened cogitations. The author says:—"When we take a retrospective view of the state of mankind during the ages that are past, it presents, on the whole, a melancholy scene of intellectual darkness. Although, in every age, men have possessed all the mental faculties they now or ever will enjoy, yet those noble powers seem either to have lain in a great measure dormant, or, when roused into action, to have been employed chiefly in malignant or destructive operations. Hence, the events which the page of history records, chiefly present to our view the most revolting scenes of war, rapine, and devastation, as if the earth had been created merely to serve as a theatre for mischief, and its inhabitants for the purpose of dealing destruction and misery around them. Such, however, are the natural consequences of the reign of ignorance over the human mind; for the active powers of man necessarily follow the dictates of his understanding, and when the intellectual are not directed to the pursuit and contemplation of noble and benevolent objects, they will most frequently be employed in devising and executing schemes subversive of human happiness and improvement."

Having arrived at this sentiment, so happily expressed, and so congenial with some of our own views and reflections, we must detain the reader from our "gleanings," until we make a few incidental observations. When we cast our eyes over the quotation, "the active powers of man's mind necessarily follow the dictates of his understanding," how important it is that we should ever feel deeply the impression from the declaration of the wisest among men, when he so strenuously urges the precept, "get wisdom! and with all gettings get *understanding!* Solomon has here given a lesson of instruction that is applicable to the whole record of useful information with which men's mental faculties are conversant. Those of our friends who are devoted to our system of botanic treatment, will see that it requires to be well understood, that we may know rightly how to appreciate its real merits. A cursory, superficial, partial, prejudiced investigation of the momentous subject, will never enable any man to judge righteously of the merits or demerits of the cause. How important it is that the "intellectual faculties be directed to the pursuit of noble and benevolent objects!" that the mind be endowed with the ornament of an ingenuous, candid disposition! The system of instruction commonly pursued in our colleges and universities, is calculated to inflate the mind with vanity, to make *literary dandies.* In no case does this observation apply with greater force than to the medical faculty. The professors of the faculty of medicine have everywhere dealt in mysticism, absurd,

arbitrary and bewildering technicalities; and the people, through ignorance, love to have it so.

Jacobus was unwilling to pay his parish tax for the maintenance of the parson, because he did not give long quotations of Greek and Latin, though he, poor fellow! could not distinguish the one from the other. He refused to take a *recipe* to the apothecary, to obtain medicine for his sick family, because it was written in plain English, that he could understand! A distinguishing superiority of our system of Medical Botany, is its simplicity, and the plain and intelligible manner we have placed it before the community. We have written nothing technical, and have avoided all pompous display of words and phrases in the room of useful facts.

Our readers are not perplexed with mysterious sophisms, "extravagant theories, and metaphysical subtileties;" but the doors of the great temple of useful knowledge are thrown open, truth is made accessible through plain, unobstructed avenues, and the honest inquirer so directed in the way he should go, that he need not wander in the wild mazes of conjecture, enveloped in the clouds of hypothesis and bewildering uncertainty. How contrary is this to the course pursued by both the modern and ancient *literati!* We shall therefore go on, and shed the little light we have obtained from the broad book of nature, far and wide, give the key of knowledge as far as possible to the people, that they may feel and improve the privilege of exploring the heights and depths of nature's golden mines, and acquire the inestimable treasure of genuine wisdom and knowledge in the healing art.

24, *Montague-place, Russell-square.*

(To be continued.)

A DREADFUL CASE OF SALIVATION,

Recently produced by a highly vaunted, extensively advertised quack nostrum, in the shape of pills, professing to be purely vegetable.

A residence in Camden Town.

Miss L. L., in a fearful state of illness.

Miss B., upon being shown into the apartment, exclaims: Good Heavens! Louisa, what is the matter with you?

Miss L. (scarcely able to speak). Oh! I am exceedingly ill! my tongue is so swelled that I can scarcely hold it in my mouth; all my teeth are so loose that I fear they will drop out—what is the matter with me I cannot think. Oh! it is terrible.

Miss B. It is, indeed; I have scarcely seen any one so bad; let me beg of you to send for Dr. —— as soon as possible.

Dr. —— is sent for, who, immediately upon his arrival, discovers Miss L.'s state, from the peculiar fetor or smell in the room, &c.

Dr. ——. Why, Miss L., you are suffering under a dreadful state of salivation. What have you been taking?

Miss L. Some pills, sir.

Dr. ——. Nothing else?

Miss L. No, sir.

Dr. ——. What quantity did you take?

Miss L. I took two, which had no effect; a short time afterwards I took two more, which operated; I then went out, the day was cool, and when I came home, I began rapidly to become in the state you now see me.

Dr. ——. No wonder. It is surprising that it has not cost you your life. Have you been in the habit of taking these pills; and are you sure they are genuine?

Miss L. I have taken them for a long time at intervals, but have often remarked, that after taking them, my mouth and lips have become sore. I thought it very strange, but did not think it could be the pills. I am certain the pills are genuine.

Dr. ——. Then by no means take any more; be very careful in going out, for, from this time, you will be very subject to take cold.

Three weeks have now elapsed (viz.), up to the 24th of October, and Miss L. still complains of great numbness of the teeth, and is far from being recovered.

Miss L. has never been confined to her room from childhood upwards, with any serious illness, and has never taken mercury in her life, excepting in the above pills.

We are fearlessly determined to do our

duty, being men whose sole employment is to do all the good we can in our day and generation; in consequence of which we have carefully analysed those pills, and the result is, that they do absolutely and unmistakeably contain mercury.

The above is the result of pure quackery, being neither the consequence of empiricism, nor the rules of art.

These pills profess to be purely vegetable, yet contain that which has deeply injured an individual, and which nothing but mercury could have done.

Away, say we, with such advertised lies! and we would most earnestly caution our readers, connexions, and the public, never upon peril of their health to take such abominable trash, as the majority of the advertised nostrums undoubtedly are.

We take the present opportunity, deeming it a very fitting one, to make some observations upon quackery and empiricism, trusting they will not be considered out of place.

Dr. COFFIN is stigmatised as a quack; so are his agents. He is styled an empiric; his agents share the same fate; with what degree of truth let the following decide.

Many who thus mark with undeserved infamy Dr. COFFIN and his agents as quacks, if asked for a true definition of the term, could not give it. We will enlighten them on the subject.

The word quack means "a tricking practitioner in physic, or any other art." We boldly and fearlessly demand of all who brand Dr. COFFIN and us Medical Botanists connected with him, with the above title, to publish to the world what tricks they can prove us guilty of (trick means a deception, a cheat). Is it a trick to cure disease—to restore the suffering invalid to the enjoyment of health? is it a trick to do this even when a member of the faculty has failed (which we have repeatedly done)?

Dare we descend to trickery, having no college diploma to protect us? Assuredly not. We make no secret of our practice, or medical compounds, nothing is hidden from the lowly and unlearned, our prescriptions are not mystified by dog Latin, as the faculty's are.

We have no incentive to cheat or deceive; our system and botanical medicines are as clear as the sun at noonday. We have no *tricks*, consequently we are not *quacks*, and defy all the most learned to prove it.

Now, as to empiricism, What is its meaning? "A dependence on experience, without the rules of art; also used as a term of reproach and contempt." We would ask, Did art precede experience in the first instance? Who dares answer, Yes. Did experience precede art? Who dares answer, No.

This being the case, art was the offspring of experience, and not its precursor. Experience was the result of observation, investigation and deep research. What did that great and ancient physician, Hippocrates, study? Air, earth, water, the vegetable kingdom, man, disease, death, and all casualties and concomitants of humanity were the pages he studied: everything that surrounds and nourishes us were the objects of his profound attention: in a word, he read diligently and sagaciously the great book of nature instead of the little books of men. But who (some of our readers may ask) is this Hippocrates? He was a native of the isle of Cos near to Greece, born about four hundred years before Christ, who first introduced medical precepts, and his maxims are still highly prized up to the present time.

Here then is a man whose name is immortal. Owing nothing to art, he had not a diploma from any college; Nature was all his warranty; but because Nature was not sanctioned by a government, he never became a licenciate of any company in order to practise, therefore he was an EMPIRIC, and such are Dr. COFFIN and the Medical Botanists styled—we whose whole study is cause and effect—we who feel the greatest interest in promoting the health and wellbeing of our fellow creatures, and whose sole dependance lies on our observations, investigations, researches and experience, and if there be any reason in analogy, as the name of Hippocrates is immortal, why should not the name of COFFIN be so too? He has no meretricious adornments of art, nature alone has been his college, and well has he earned his degrees, evidenced

by the innumerable cures he has performed, and by the unexampled success that has accompanied his judicious and natural system. VERITAS.

DR. COFFIN IS RIGHT,
VERSUS
THE CRAFT OF ALLOPATHY.

To the Editor of the Botanical Journal.

SIR,—Permit me, through the medium of the Botanical Journal, to lay before the public a few statements and observations respecting some of the faculty and their conduct, which I think will show clearly to every unprejudiced mind the real motive by which they are actuated in their opposition to Medical Botany.

Some years ago they called Dr. COFFIN a "quack," and tried by falsehood and misrepresentation to "put him down." Cayenne pepper they represented as very pernicious, and Lobelia as a dangerous and deadly poison, and hoped by such vile and despicable means to deter the public from adopting his views and practice; but they have failed, and there are now thousands in this country, who have proved, by experience, the falsity of such statements, and are perfectly satisfied that cayenne and Lobelia are such as Dr. COFFIN, in his "Guide to Health," has represented them. Nevertheless, the faculty seem determined not to abandon their object whilst a stone remains unturned, though some of them are very dirty, or leave any means untried, fair or foul, by which they think they will be enabled to accomplish their purpose. They now perceive the futility of *unmixed* falsehood it seems, and have come to the conclusion to try the following compound, which, when carefully analysed, will be found to consist chiefly of *craft*.

"Dr. COFFIN is right, but what can his agents know?" These statements were made by an allopath, a short time since, to a patient who was then under his treatment; but finding no relief from it, he felt anxious to try some other means, and in answer to his inquiries respecting Dr. COFFIN, &c., he received the above, "Dr. COFFIN is right," &c. This very strongly reminds me of an anecdote related by Dr. Johnson, in his work on "Life, Health and Disease," which (anecdote) contains the advice of a physician to his pupils, how they were to act, and what they were to say, should any of their patients, when they got into practice, consult them as to the propriety of trying the new treatment, hydropathy. "They were not to run it down, not to ridicule it, because that would be the certain way to induce their patients to resort to it. On the contrary, they were to speak of it with respect, to acknowledge that it was useful in certain cases, and certain constitutions, but always to conclude by assuring the patient, that in his or her particular case, it would be highly improper and extremely dangerous." "And this is the *ruse*—this the quirk practised by some medical men, at the present time, towards Medical Botany. They have ceased to rail at it, ceased to laugh at it." Speak of Dr. COFFIN with "respect," but always take care to conclude by saying, "What can his agents know?" In answer to this, I would say, that the man who does not *know* how to estimate the character of men who speak and act in the above manner, must be very stupid indeed, whether he be an agent for Dr. COFFIN or not; and I would add, that did the public generally *know* as much as we *know* about that profession and practice by which "thousands are slaughtered in the quiet sick-room," that practice and that medicine which do "more harm than good," would soon fall into disrepute, and be abandoned by all who wish to *keep a healthy body, live to old age, and die a natural death.*

If the faculty who say "Dr. COFFIN is right," really believe what they say, how is it that they still adhere to a practice which is so diametrically opposed to his, that as certain as he is *right*, they are *wrong*. My opinion is this, and I have good reasons for it: that many of them, if not all, have but little faith in their own medicines, with which they ought to be well acquainted, and if that be so, how can we reasonably expect them to have faith in the remedies used by Dr. COFFIN, of which they know but little, or why do they call those things "pernicious and poisonous" which are not so? When they say that "Dr. COFFIN is right," they are only acting in accordance with their

teacher's advice, who said they must "speak of it with respect" because "to run it down, to ridicule it, would be the certain way to induce their patients to resort to it." Having by experience proved the truth of these statements, they now seem disposed to speak of Dr. COFFIN and his practice with "respect," and hope by such unmanly and hypocritical conduct to accomplish what they have failed to do by their vile slanders, falsehood, and "ridicule." But they forget, it seems, that to run down, to ridicule, Dr. COFFIN'S agents, is "the certain way," according to their teacher, to make the people resort to them. They have so long been crying "wolf, wolf, when there has been no wolf," that they must not be surprised, if in future, when they make an alarm, they should meet with the same disregard as the boy in the fable. The old adage says that a liar is not to be believed though he should tell the truth.

The above statements will, I think, convince those who may read them, whose mental perceptions are not blunted by the flippancy of allopathy, that the faculty, in their opposition to Medical Botany, are actuated mainly, if not solely, by a sordid motive of self-interest, regardless of the welfare of others. But,

> Though interest, the worst of foes,
> And *craft*, may for a while oppose,
> The truth will spread from day to day,
> And "by and by" these monsters slay.

That "Dr. COFFIN is (really) right," or, in other words, that his teachings respecting disease and its treatment are in accordance with the "laws of nature," the dictates of reason and experience, is a fact, supported by undeniable evidence—men, women and children rescued from the jaws of death and restored to the enjoyment of health, after the faculty had given them up as "incurable"—a fact respecting which any man of ordinary understanding may soon satisfy himself, who will read carefully Dr. COFFIN'S "Guide to Health" and Dr. A. Combe's "Principles of Physiology"—two books that everyone ought to possess who desires to know the cause or causes of disease, how to preserve health or restore it when lost.

I feel desirous of saying something more in answer to the question, What can his agents know? but fearing that I have already trespassed upon your space, I will conclude, and at a future time give you the remainder, headed, "What can Dr. COFFIN'S Agents know? versus, What do the Faculty know?"

I am, sir, yours truly,

AN AGENT FOR Dr. COFFIN.

NATIONAL ASSOCIATION FOR THE PROMOTION OF SOCIAL SCIENCE, &c.

To the Editor of the Botanical Journal.

SIR,—I hope the remarks in your last number are premature, in reference to the paper I had the honour to prepare on medical reform for the above association.

It is true the secretary wrote me, "the Public Health Committee regret that your paper does not come within the scope of the Society, and that it will be returned to you when the conference has broken up."

The conference ended on the 16th October, and as it has not been returned, it is quite possible that the committee, who doubtless decided hastily in the hurry of business, may be induced to reconsider the subject. I therefore shall not deem the paper rejected until it is returned with that intimation. Should the committee, however, ultimately decide against its reception, depend upon it the effort will not be lost: the question could not be discussed before so learned a body without at least preparing the way for future action.

I was very glad to see Dr. COFFIN'S very interesting correspondence on Lobelia. I also took the opportunity of writing fully on its merits, and sent all the authorities I could find in its favour to Lord Granville; the Hon. W. Cowper, President of the Board of Health, who courteously replied; also to the fearless and independent member for Finsbury, T. Duncombe, Esq., whose letters will be published in the forthcoming report of the Agents' Society. I suppose red tape and routine prevented the President of the Council from officially replying to an unlicensed innovator.

How much longer will the country submit to be gulled? The *Times* of the 3rd of October gives long extracts from the Registrar General's Quarterly Report, where it is shown that 100,590 persons

died in England in the quarter ending September, 1857; 91,330 the same quarter in 1856; and 87,646 during the same time in 1855. Hence, with all our vast sanatory improvements, enforced or suggested by a Board of Health with an expensive staff of officials, we have an excess of 12,944 deaths in one quarter, which is fearfully large, after allowing for the increase of population, which however would not reduce it materially, as the numbers who emigrate are nearly equal to that increase. Yet the *Times*, in a leading article, the very next day, says the health of the country, according to those returns, is satisfactory. Satisfactory, is it? Should we not rather say with Dr. Farr, as contained in a Blue Book published by the Select Committee on the Public Health and Nuisances Removal Amendment Bill:—"There is a constant tendency therefore in the general mortality of the country to an increase;" again, "the mortality is greater in proportion to the whole population than it was in 1821 and 1831." I must now leave your numerous readers to decide how far they are satisfied with the result of the Registrar General's report. Working and waiting for the good time coming,

I am, &c., JOHN STEPHENS.

108, *Ratcliff-highway*,
4th November, 1857.

TO OUR AGENTS,

AND ALL WHOM IT MAY CONCERN.

WE did hope that as it has been the express desire of many that we should make our Journal a vehicle for advertisements, our announcement would have met with responses, more especially as the low rate we have stated must convince any one that pecuniary gain has not been our object.

The interest of our agents have been our sole motive, and we do think that it must be as obvious to them as it is to us, that it will be beneficial in every sense of the term to avail themselves of the opportunity we have so reasonably afforded.—EDITOR]

P.S.—Since writing the above we have received one advertisement for a commencement; and now as the Rubicon is passed, we anticipate a sufficiency shortly to fill our page.

ASTROLOGY AS CONNECTED WITH MEDICAL BOTANY.

(Continued from page 88.)

Now, what is the Astrologers' *foundation* for the rules for gathering herbs according to the preceding table? and how did they know, that certain herbs were under the dominion or government of the before-mentioned planets? They cannot answer these questions. We therefore proceed to explain their assumptions (for assumptions they only are), by asserting that the above rules are founded upon the Heathen Mythology of our *Saxon ancestors*. In corroboration of which our Sunday is derived from the Saxon Sundag, the day on which the Saxons worshipped the Sun; Monday from Moondag, when the Moon was worshipped; Tuesday from their God Tuisco, whence their Tuisdag and our Tuesday. But the Astrologers, to vamp up their system, have placed the classic God Mars; and for Wednesday, Mercury, instead of the Saxon God Woden, from whence the Saxon Wodensdag and our Wednesday. Thursday the Saxons worshipped their God Thor or Thunre, whence their Thorsdag and our Thursday. On Friday their devotions were paid to their Goddess Friga, which agrees in all her attributes with the Goddess Venus; this accounts for the Saxons' Fridag and our Friday. To finish the week, they prayed to their God Satur, whence their Saturdag and our Saturday.

Upon a review of this part of our argument, the fallacies are peculiarly striking: First, it is assumed that the Sun rules certain herbs, for which reason they must be gathered on a Sunday; the same with the Moon on a Monday. Is this because Sunday and Monday are derived from the Sun and Moon? or is it to give a colour to the whole matter? We have proved the derivation of Sunday and Monday, which can have nothing to do with the positive assertion that the herbs must be gathered on those days. Again: as the days are divided into twelve hours, and the hours in summer time twice as long as in winter, how must these learned Thebans the Astrologers regulate the time for the high northern and southern latitudes, where the sun never sets for months, nor rises either? Thus preciously

long days and nights are produced, and consequently we should wish to be informed how long the hours are, and which are the first and eighth hours of the day, as also of all the intermediate latitudes, which vary so considerably from ours in the length of the days and nights.

In fact we think that this part of the argument is a conclusive proof of the utter futility of their system, and when we connect the former part of this essay with this the latter, it fully proves Astrology to be false, and a delusion palmed upon mankind in early days for nefarious purposes.

Having thus settled the astrological question of the herbs and their gathering, we will just glance at a few more fallacies preparatory to considering the judgment of diseases as connected with Astrology. Not only are the twelve signs of the Zodiac, but also the planets, brought into requisition to account for the bodily shape, temperament, diseases and accidents mankind are subject to. Take as an example the following: Sagittarius signifies one of a fair stature and strong body; long face, but full and fleshy; complexion sanguine or ruddy; the hair a kind of chestnut colour. The diseases under this sign are fevers, and such infirmities as are occasioned through heat of blood, the sciatica, pains in the hips and thighs, falls from horses, and hurts from four-footed animals! Now for a planet—for instance, take Jupiter: he signifies one of an upright and tall stature; a large, deep belly; thighs and legs strongly proportioned; feet long; face oval, full and fleshy; complexion brown and ruddy; high forehead; soft and brownish hair; much beard; and sober speech. The diseases under this planet are pleurisies, and all infirmities of the liver, lungs, ribs, sides, veins and blood, the digestive faculty, cramps, pain in the backbone, quinsies, windiness, and putrefaction in the blood, fevers proceeding from wind and ill blood; thus providing a false cause for a certain effect, which can have no relation to the cause assigned; or, in other words, ascribing certain influences to the heavenly bodies which they neither do nor can possess: for the extension of which folly Astrologers pretend to show what part of man's body is governed by every planet in any of the twelve signs; for example:

Saturn in Taurus governs the heart, breast and throat			
Jupiter	„	„	shoulders, arms and abdomen
Mars	„	„	veins, throat and neck
Sun	„	„	knees
Venus	„	„	secrets and head
Mercury	„	„	thighs and feet
Moon	„	„	legs and throat

From this, as well as all that has been advanced, we would candidly ask whether such a science as Astrology can contain (as a system) one particle of truth.

We will now proceed to the judgment of diseases according to Astrology; and the first subject that presents itself to our notice is *critical days*, which the Moon rules because she is the swiftest—because she is assimilated to the body of man, whose virtue, as well as her light, increases and diminishes; for she brings down the virtues of the other planets to the creatures and man whilst upon this earth. The course of the Moon determines the changes and terminations of diseases; wherefore the seventh, fourteenth, twentieth, twenty-first, twenty-seventh, twenty-eighth and twenty-ninth days of sickness are called critical days, which cannot be known but by the course of the Moon; and she makes four critical days during her revolution round the earth. Upon a critical day, if the moon be well aspected with good planets, it goes well with the sick; if by ill planets, it goes ill; and if two persons be taken sick at one and the same time, the crisis of the one falls out well, the crisis of the other ill, for the virtue working is changed according to the virtue receiving. The Sun makes clay hard and wax soft: so if one be a child whose nature is hot and moist, the other a young man, and a third an old man, the crisis works differently, because their ages are different.

Again: suppose the moon was in the place of Mars, whose nature is hot and dry—if the disease be of heat, it greatly aggravates it. Astrologers also pass judgment two ways as regards diseases. First, universal: thus Saturn rules consumptions; Mars, fevers; Venus, women; Mercury, scholars. The second particular, and the seventh house has dominion over women, the ninth over scholars, &c.

Observation :—Astrologers draw a fanciful figure, which they call a scheme or diagram divided into twelve parts called houses. Now no particular can destroy a universal. For example: if Venus be ill placed in a nativity and the lord of the seventh were placed, we say the person for whom the diagram is drawn shall incur evil by women; also you must judge in this case by the general significators of disease (viz.), Saturn and Mars.

This is a specimen in what manner Astrologers form their judgments.

HIPPOCRATES.

This ancient and venerable physician, so distinguished in the annals of medicine, "belonged to a class styled by his learned and scientific successor" (says the Medical Enquirer), "from Celsus down to the present day, empiric. So was the modern Hippocrates of England, the immortal Sydenham, styled an *empiric*. So must be considered every good and respectable physician whose name adorns the annals of medicine for centuries past, and whose theories have been exploded or proved erroneous, as all have. For it is universally admitted, that a '*false theory is worse or more dangerous than no theory.*' Hence all learned theorists, whose reputation has descended to us on the score of their great learning and voluminous works, constitute, by strict inference, that class of physicians which may be truly styled *quacks*, as 'making pretensions to a knowledge they are ignorant of.' The truth of this opinion is verified by the fact, that the above record of the *experience* of our learned predecessors is the only reward of their merits with posterity."

Testimony like this must have some weight with those who know how to appreciate the talents and discernment of the editor of the work from which it has been extracted. True it is they have belaboured their contemporary competitors for medical fame. There has been a mortal struggle in different ways to elevate the standard of medical dignity and consequence. The medical kingdom, thus divided, abusing and abused, in literary strife and learned warfare, in verbose conflict, raise the tumultuous din of their wild ambition, and through the wide range of their dominions marks of desolation are plainly portrayed. The whole fabric of medical science presents such a lax tissue of heterogeneous materials, that honest minds have lost all confidence in the extravagant pretensions of the law-protected, scientific faculty, who have vainly aspired to engross all medical learning and to monopolise all honours or profits appertaining to the healing art. Universities are arrayed against universities; professors censure and condemn professors. One theoretical conjecture succeeds another. There has been no settled, definite principle agreed upon in the long ranks of *learned quackery* to be the standard of the craft round which the sons of medical science might safely rally. The simple, plain and unequivocal doctrines of Medical Botany, which are now being extensively propagated and cordially received, establish a new era in the march of medical inquiry. The conflicting parties of the ancient schools have made their opposition a common cause. Medical Botanists have been dragged to the combat.

We are now able to occupy a firm stand in the arena, and bid defiance to the missiles, with which our antagonists essay to carry on the controversy. Our theory leads to practical results highly satisfactory to the parties concerned. Our practice, predicated on our theory, being successful even in illiterate hands, and having performed certainly and promptly most extraordinary cures, mutually sustain each other. In the great combat held against disease, more victories have been achieved and imperishable laurels won than all the schools of medicine can boast during the same period in an equal number of cases. Though now and then a patient has fallen, it has not been more than one in a hundred, and that will not, even by our enemies, be thought much, when we alone see some three hundred weekly, and the most of those having been before attended by one of the old-school doctors, and even then in most instances, the failure could be fairly traced to inattention, defect of confidence, or impatience in persevering industry on the part of the sick, or his attendant, that led to the disaster. We have met the enemy; we have fought and conquered.

"Delhi is fallen," is the current report of the botanic practitioners. We say, therefore, to our friends, Go on and remember the grateful thanks of a restored patient are a greater reward than you could otherwise receive, and will compensate for all the calumny that can be heaped upon you by our interested though defeated opponants.

24, *Montague-place, Russell-square.*

PICTORIAL ILLUSTRATIONS OF MEDICAL BOTANY.

THE first of our series of Coloured Plates, the names of which we give in English and Latin, is

HOREHOUND—(MARRUBIUM).

DESCRIPTION.—Common Horehound grows with square, hairy stalks, from eighteen to twenty-four inches high, set at the joints with two round, crumpled, rough leaves of a sullen, hoary green colour. Scent tolerable; taste very bitter.

FLOWERS.—Small, white and gaping, set in a rough, hard, prickly husk, round about the joints, with the leaves from the middle of the stalk upwards, in which is afterwards found small, round, blackish seeds.

ROOT.—Blackish, hard and woody, with many strings; it remains many years.

PLACE.—Dry grounds, and waste, green places.

TIME.—Flowers in July; seeds ripe in August.

QUALITIES.—A powerful tonic. A stimulant by acting as an expectorant, having a tendency to loosen the phlegm. Good for colds and indigestion.

A syrup made of horehound and ginger root is excellent for children having the whooping or chin cough, or a sudden cold.

(The plate in our next.)

ILLUSTRATIVE ANATOMICAL DRAWINGS.

WE are enabled to offer anatomical diagrams and drawings of the human frame in all its varied developments, drawn from the first anatomical sources in London, beautifully and carefully coloured BY HAND, and at such a reasonable price as to come within the means of all parties desirous of becoming acquainted with the anatomical structure of the human subject. In a series of five drawings, thirty inches by twenty-two inches; the subjects of which are as follows (viz.):

1. Organs of digestion, showing at one view the stomach, liver, gall-bladder, pancreas, spleen, large and small intestines.

2. Enlarged view of the stomach, liver, gall-bladder, pancreas, spleen, esophagus, mesenteric glands with lacteals, thoracic duct, with entrance into subclavian vein, showing how the nutriment of the food is converted into blood and mixed with the circulation.

3. Circulation of the blood, containing the heart, lungs, main arteries, and veins, and the kidneys.

4. Whole-length figure, portraying the different regions of the body, with the main external arteries, showing the various places where pressure ought to be applied in cases of accident, requiring the blood to be stopped.

5. The trunk, bringing into one view all the viscera.

The whole figure, five feet six inches high, showing the lungs, heart, liver, stomach and viscera, with the leading arteries and veins, and where pressure ought to be applied in cases of accident —a splendid figure.

G. CALDWELL,

Surgeon and Practitioner of Medical Botany, Proprietor of the Botanic Dispensary,

34, WORCESTER STREET,

Sole Agent for Dr. COFFIN in Birmingham, from whom all the Herbs, Roots, Barks, and preparations used in the Botanic Practice, can be had genuine.

Mr. CALDWELL may be consulted daily, from 10 to 12 in the morning; from 2 to 4, and from 6 to 8 in the evening (Sundays excepted).

NOTICES TO CORRESPONDENTS.

W. C. L., Pool.—"The Nottingham Botanic Society," and *Susqueannah Root.* Several others, besides our present correspondent, have from time to time written to us about the above root. We can state of a certainty that we never saw or heard of such a root in America; that Dr. JACOB BIGELOW, the celebrated botanist, says in a recent letter (August 6th), "there is no such root known in America." And there is not *now* in Philadelphia such a person as Professor WEBSTER: Professor WEBSTER, of Boston, was hung some years ago for murder.

POST-OFFICE ORDERS and all communications for goods, &c. to be addressed to William B. Ford, 134, High Holborn.

The Botanical Journal and Medical Reformer is published Fortnightly, at No. 134, High Holborn, London, where all orders must be addressed.

HOREHOUND.

(MARRUBIUM VULGARE.)

COFFIN'S
BOTANICAL JOURNAL
AND
MEDICAL REFORMER.

"Human experience, which is constantly contradicting theory, is the great test of truth."—Dr. Johnson.

No. 249—Vol. VIII. SATURDAY, NOVEMBER 28, 1857. Price 1d.

THE GLEANER, No. 2.

We remember that Dr. Woodhouse has somewhere said, that "all medical theory is false." The fact is, the most judicious theory is liable to be misapplied, and truth perverted by erroneous deductions and indiscreet practices. "Happy, had it been for the world," says a late anonymous writer, "if the medical systems which have been obtruded upon it, were only chargeable with inutility, absurdity, and falsehood. But, alas! they have often misled the understanding, perverted the judgment, and given rise to the most dangerous and fatal errors in practice." This writer of the old school will direct the attention of our friends to the weighty facts by which our former plain and unreserved assertions are ably supported. The writer, after taking this decided position, proceeds to say:—"A short view of the history of physic will convince us of this melancholy truth. As long as philosophy was built, not upon the substantial basis of actual experiment, but imagined properties, which were assumed as data, it was putting on new forms almost every day; for one fanciful opinion had always a right to supplant another. Hence, the best philosopher in such days was he who could reason most ingeniously on occult qualities, either invented by himself or some favourite writer. Lord Chancellor Bacon was the first who appears fully to have discovered the fallacy of this sort of philosophy. He rejected all that chimerical nonsense which usurped the name of philosophy, and wisely exclaimed, '*that the operations of nature were not to be fancied, but diligently scrutinised.*' Hence, in less than the space of a century, the principles of philosophising being attained, more light was thrown on every branch of science than it had received for about two thousand years before." After all, it must be conceded that the schools of medicine have made but small proficiency. True there is a great parade of scientific inquiries; but what have our learned professors done to prevent or remove disease, or promote the life of man beyond its wonted limit? We would not say that much has not been written, or that no valuable discoveries have been made; but, in point of utility to mankind, medical discoveries have by no means kept pace with chemistry and the mechanic arts. Many new theories have been devised, and have had their patrons and abettors for a season. Like a painted butterfly, they have fluttered awhile on gay, fantastic wings, and died away, to give place to some succeeding conjectural philosophic dream.

After all the noise and strife of the medical schools, it must be acknowledged that Medical Botany has conferred a greater blessing on the world, than all the systems that has gone before. Our theory of disease, and our prescriptions for the removal of sickness, and the recovery of health, are simple and intelligible to the humblest capacities of men in common life, and the faith of the learned is often staggered at the voluminous facts by which our system stands confirmed before the tribunal of public opinion. The attempts everywhere made by the learned faculty to invalidate those facts, and to heap op-

probrious contempt upon the cause, shows there must be something wrong by which men are induced to make such opposition. The great and distinguishing excellence of our system, as we have remarked on a former occasion, consists in its truth and simplicity in the adaptation of the remedies to general use, and the general applicability of the great leading principles of the practice to the removal of all the varied forms of disease incident to human kind. The current testimony of tens of thousands is precisely this: "I was sick, extremely sick, and my case was accounted hopeless; I was abandoned by the physician, when providentially, *but almost reluctantly*, I was induced to apply to the Botanic practitioner. I received his visits amongst the sneers and ridicule of some, the fears and hatred of others. I took the medicines; I soon realised the salutary effect; and behold, contrary to all human expectation, I began to mend from that very hour, and was soon made well; and, from a doubting, hesitating, wavering disciple, I have become a firm, decided Medical Botanist. I have procured Dr. COFFIN'S 'Guide to Health,' and have taken my final leave of the mineral drugs, and bid a lasting adieu to the medical faculty. I am now not only able to relieve myself when attacked, but can cure my own family, and by this means not only save an immense amount of pain, but a large sum I was in the habit of paying to the doctors annually."

24, *Montague-place, Russell-square.*

SPREAD OF MEDICAL BOTANY.

THE most of our readers are aware, that our "Guide to Health" has been translated into several languages. In France in particular it is taking deep root; and one, not only gratifying but (to the parties concerned) deeply interesting fact is, that the same success attends the system in every country. We have recently received from a friend in Paris several certificates of cures, one of which we have translated, and shall give in this number of our Journal, and also the letter from our friend:—

"Dr. COFFIN.—Dear Sir,—M. Gillot, of Rue du Faubourg St. Antoine, 172, the person I spoke to you about, remitted to me last night the certificates I mentioned to you, and which I have herewith enclosed. M. Gillot is an intelligent *workman*, far from being in easy circumstances, and in attending on his patients, not only gives his time, but in many instances gives the herbs; consequently, instead of being a benefit to him, it is a great sacrifice; but he considers himself sufficiently repaid in being able to do good to his fellow creatures. He has now two or three patients on hand, and has just cured a young girl of cholera. About two years ago he cured a young man of cholera, who had been given up by the faculty. He has succeeded in several similar cases of hemorrhoids. I shall always feel happy to assist you in any way in my power, whilst in Paris; and by that you will not fail to command me.—I remain, dear doctor, yours truly,

"HENRY WILLIAMS.

"*Paris, October 30th*, 1857.

"248, *Rue du Faubourg St. Antoine.*"

Certificate No. 1.—(Translation.)

"I resided about six months in London, and during that time I was attacked violently with a disease of the kidneys. I was attended by a doctor, who did me no good, but in fact left me worse than he found me, and I was compelled to enter St. Bartholomew's Hospital: while there I was attended by eleven different doctors. I received some little alleviation, but they effected no cure, but recommended to me my native air (being an Italian). My affairs obliged me to come to Paris, and I was in such a weak state during the journey, that I thought I should die on the road. On my arrival, I sent for a doctor, whose treatment did no more good than the others. Some friend persuaded me to see a M. Gillot, who speedily made a cure of me with Dr. COFFIN'S remedies, for which I send my grateful thanks to Dr. COFFIN, as well as the man who became acquainted with his system and cured me. I am not only cured of my disease, but as well able to attend to my trade, a very laborious one, as ever I was in my life.

"FRANCOIS,

"Now residing at St. Petersburg."

This, as well as those that will follow in the next Journal, can be seen in their original language.

24, *Montague-place, Russell-square*.

EXTRACTS FROM AND REMARKS UPON DR. RICHARDSON'S INTRODUCTORY LECTURE.

In the Introductory Lecture delivered by Dr. Richardson, at the opening of the Session 1857-8, at the Grosvenor-place School of Medicine, the students are reminded, that "There were two ways to the attainment of name and wordly position in medicine. The one was broad, easy and inviting; the other narrow, difficult and uninviting. In the broad and easy way were the most travellers. Here were the men with *means*, who could fête (treat) their fellows, and trust to their 'governors' in emergencies; who could bide their time until the golden apple was thrust into their hands. These, the petted children of the broad highway, were not to be envied. They were, as a general rule, foppish, supercilious, ignorant, and formed a class which might be called the '*young lady' class* in physic. In this path, too, were found the men who tried to progress by paying false deference to their fellows and superiors; these were the *toadies in physic*. Again: there were in this road the dissolute and idle men, who took things as they come and let them go as they go; who, deriding a progress they could not follow, and dying as though they had not been born, earned for themselves the *old woman* class in physic."

When we find that a lecturer, in his address, is compelled to make the above observations as the result of his experience of the characters, lives, and motives by which the greater number of those medical students with whom he is more immediately connected, are actuated, it tells but very sadly for the honour, the attainments, and proficiency of the rising generation of medical practitioners. Does it stand to reason, that the first division alluded to, which appears to be the aristocracy of the profession, whose heads must be as empty as the upper stories of the majority of our younger aristocracy generally are, being also "men of means," as well as "foppish and supercilious," can have any sympathy for the poor and unfortunate, when on a bed of sickness? No: it does not, because, from their position, a contempt, and almost an abhorrence is engendered in their minds against any thing or creature low, poor, and consequently vulgar. They look out for patients among the higher classes, the ladies especially; and truly such patients must be wonderfully benefited by the vast amount of professional skill and knowledge this class brings into their practice.

We now come to class the second, the toadies. This class are those who have scarcely an idea of their own worth crossing a ditch for, but always upon the look out for the experience of others, depending upon that extraneous aid and information which they ought to exert themselves individually to obtain by study, perseverance, deep thought, and investigation; generally obliged to go under the mill to be ground and crammed; and, if lucky enough to pass the college, they think the grand object is gained: they trouble themselves no more with study; straight become practitioners; and Heaven bless *their* patients!

The third class next claims our attention (viz.), the dissolute and idle. As to the former, which, in fact embraces the latter, the chances are, they do not pass the examination, and are obliged either to set up (if sufficient cash be obtained) as chemists and druggists; or if not, as assistants in dispensing shops. Thus they live unhonoured and die unlamented; at least so far as professional attainments are considered. As regards the idle, they may or may not be dissolute; the one does not always involve the other. If they pass, which they sometimes do, they settle themselves down to a sort of humdrum practice, in which midwifery claims the greatest share. They have sufficient knowledge to be aware that parturition is a natural occurrence; that nature with the least assistance is amply sufficient; and tact enough to hide their general ignorance. Having plenty of the *suaviter in modo**, they enlist the females on their side; and, like the Newcastle apothecary, all the old women think them *nice men*. And thus they continue in the arena with a jogtrot pace.

In the narrow and difficult path, however, there are but few travellers: those

* Gentleness of manners.

are they of high principle and great resolve, fully aware of the dignity of the profession which they have chosen, fully aware of the arduous task which lies before them, yet with unshaken confidence in their powers, are resolved to screw their courage to the sticking place, and by untiring energy and assiduity are determined to gain the praise of those who superintend their studies and practice, and win for themselves a name and renown. To such, the glorious few, we would say, "Go a-head, let nothing daunt you, let no obstacle impede your progress, and above all things let the liberal and enlightened advice of Dr. Richardson (viz.), 'To read and understand nature for yourselves, allowing nature her own work, and letting nature stand as the senior partner in your concerns,' have the greatest weight with you: never lose sight of it, make everything subservient to that grand principle; eschew and utterly abnegate the use of the poisonous simples and compounds of the generality of the faculty; let your grand axiom be to assist nature, by using those curative agents which assist, restore and act in accordance with her operations, and which can only be found in the vegetable kingdom; nor by any means have recourse to those mineral remedies (*alias* poisons) whose depletory, prostrating qualities repel the exertions of nature. Study Botanical Remedies; let them be your curative agents; and numbers yet unborn will live to honour your names, esteem your merits, and designate you as benefactors to mankind!"

CONVERTS TO MEDICAL BOTANY.

To the Editor of the Botanical Journal.

Sir,—After giving the subject of Medical Botany, in conjunction with the system pursued by Dr. Coffin, the most serious attention and study, and comparing it most patiently and assiduously with the allopathic systems and methods of practice that has fallen under my somewhat extensive observation, I am become a sincere convert to the cause, and have been highly delighted with the spirit, energy and talent displayed in your last two or three numbers of the Journal. Nothing that I have seen upon the subject has afforded me more heartfelt satisfaction than the determined course you are pursuing.

State patronage is a coat of mail; lectures, diplomas and prejudices the ponderous armour of the schools. Yet victory is certain without these. Truth is a most effective weapon. If well directed, it must ultimately triumph, and must prostrate all opposition. The faculty may stalk forth with majestic strides, with all the scornfulness and disdain of a great and learned quackery; they may be determined on trampling underfoot all opposition to their views; yet ours shall be the grateful task of trying to ameliorate the miseries and distresses of the human family. No fears need be entertained from the missiles of envy. The result of the conflict must ultimately be in our favour. The benign influence of Dr. Coffin's Medico-Botanical System is rapidly gaining ground, and being extensively published, and I am convinced that the more it is examined, studied, and compared, the more converts it must gain to its truthful standard.

Honesty.

I HAVE NO TIME FOR STUDY.

It is to be hoped that this absurd idea will not prevent any from reading our "Botanical Journal," for the idea about the want of time is a mere phantom. Trace history and biography as regards this subject, and what will be the result of your investigation? Why, that those who have had the least time upon their hands have become the most eminent members of society. What time had that eminent engineer George Stevenson? Yet at what an eminence he arrived! Was the celebrated Watt remarkable for having what may be termed spare time on his hands? By no means: yet we are indebted to him for vast improvements in steam-machinery. Franklin found time in the midst of all his varied employments, to search the hidden recesses of philosophy, and to explore a nearly untrodden path of science. Frederic the Great of Prussia, with an empire at his direction, in the midst of war, on the eves of battles, which were to decide the fate of his kingdom, found time to enjoy the charms of science and intellectual

pleasures. Napoleon, with nearly all Europe at his disposal—with kings begging for vacant thrones—with thousands of men whose destinies were suspended on the brittle thread of his arbitrary pleasure, had time to converse with books. Cæsar, when he had curbed the spirits of the Roman people, and was thronged with visitors from the remotest kingdoms, found time for intellectual cultivation—nay, every man has time, and if he is careful to improve it as well as he might, he assuredly will reap a great reward. Let the mechanics, then, make use of the hours at their disposal, if they want to obtain a proper influence in society. They are the life-blood of the community; they can, if they please, hold in their hands the destinies of our state; they are numerous, respectable, and powerful, and they have only to be educated, half as well as professional men, to make laws for the nation.

The eyes of the nation are fixed on the farmers and mechanics—let them everywhere cultivate their mental faculties—no great revolutions can be effected without their consent and approbation. The important questions in which the health and lives of the community are most deeply interested, rest with them for decision. Dr. COFFIN'S system of medical practice specially invites their attention. It has been devised and promulgated with a special design for advancing the welfare of every individual who may have opportunity to give the subject a fair trial.

If any complain, they have not time to study the books of Dr. COFFIN and make themselves acquainted with his system, let them examine the matter more carefully. Which would be the most economical course? to enjoy health yourself, with your little family smiling around, or for some one, two, or three of you to be sick and unable for business, five or six months in a year, and then to have a heavy doctors' bill to pay? That would cap the climax of your afflictions. The number of converts to Dr. COFFIN'S system of Botanic Medicines and practice, is daily and rapidly increasing. Many of the faculty are coming over—yes, many such have believed on him, and on the safety and efficiency of his discoveries, and flock to the botanical standard.

The doctors have continued their persecutions, until they have opened their own eyes, and begin to exclaim at their folly. The wealthy and the talented have embraced our system. One convert makes one or two more, and thus we have gained, and are still gaining ground.

AN ALLOPATHIC M.D. ON MEDICAL BOTANY.

To the Editor of the Botanical Journal.

Sir,—You request my opinion of the Medico-Botanical System of Dr. COFFIN, and inquire something concerning my medical studies previous to my adopting the Botanic Practice. I will with pleasure endeavour to satisfy your inquiries in as brief a manner as I am able.

After having finished my college education, proceeded to study medicine, and attended the usual course of lectures, I commenced practice, but quickly found that the *theory*, however beautiful it might appear, would by no means agree with the practice. I entered the practice with all the ardour that it is possible for any young practitioner to possess. Every leisure moment was employed in perfecting my knowledge of the science of medicine; and I flattered myself that I was as successful in my practice as my contemporaries: my prospects were flattering, and my practice lucrative for fourteen to fifteen years. I then became wearied of the practice, and during the latter part of my time have given it over, unless constrained by the entreaties of friends. I could do no better than pity their distress. You would here inquire what it was that could induce me to relinquish a gainful practice and adopt a system of yesterday; to leave the old beaten track for one newly opened. I answer, Because the marks to point the way to proceed, in the old practice, were fallacious, and not to be depended on when life was at stake.

Here I would candidly ask the candid practitioner, if he has not often been deceived in the symptoms of disease, when, flattering himself with the prospect of the speedy recovery of his pa-

tient, when he left him perhaps at evening, the next visit, perhaps the next morning, found him breathing his last. You behold him surrounded by weeping friends, because they conceived him departing to his long home. In such circumstances humanity sickens, and anxiously inquires, "Is there no relief from disease and premature death?" The answer is to be found in the *Botanic Practice;* this new practice having and will have a *decided superiority* over every other mode of cure yet known to man. I find by experience in my family, and among my friends, who have used the medicine as directed, that in FEVERS it generally relieves the patient in *twenty-four hours*, and often in *less time.* A number of cases in my own family, that have been as violent as any, under the old practice, which required *three or four weeks* before they were able to leave their bed, yet by the Botanic System they have been relieved in the short time already stated. This practice under my direction has triumphed over an ascites (dropsy of the abdomen) in which the old practice has laboured in vain. In myself a violent attack of rheumatism and cholera morbus both yielded to the botanic applications. Another fact is worthy of notice: the patient does not suffer the great debility, by a course of this new practice, that commonly takes place in the old. The natural functions are soon restored to their former vigour; the patient *forgets* he was sick. Do you wish me to account for this? It is easily done: there is not that prostration of strength by depleting remedies in the new, as in the old practice. Another reason why the same degree of debility is not induced, is that the medicine used is in harmony with the powers of life. Hence it is, after the operation of Dr. COFFIN'S remedies, the patient feels invigorated and cheerful. One other fact which gives this new a decided advantage over the old practice is, that the remedies are the same in all cases that can possibly occur; the object is uniform (viz.), the restoration of the natural heat as it is a primitive vital property. Hence the practising physician, acting with any degree of common discretion, cannot err materially in administering the remedies; he is not liable to do any irreparable injury to his patient.

This is *not* the case with the old practice. How often have we witnessed with grief, the baneful effects of medicine on the constitution of the patient! Where is the medical man that will not acknowledge that his medicine has often operated in a different manner to what he expected, and that from the use thereof his patient was worse?

A Brown, a Rush and others, have declared firmly their belief in the *unity* of disease and the *unity* of cure. Dr. COFFIN joins them in their conviction and practises precisely on that system. Away, then, with your thousand diseases, and your thousand remedies! and adopt that system of practice that is both safe and most salutary to mankind.

In conclusion, I would add another reason which makes Dr. COFFIN'S system most valuable, and that is, its simplicity or its plain, natural adaption to the illiterate, untutored minds of the human family. The poor and illiterate require the attention of the humane and benevolent, in all countries, and such are the most numerous class in society. To such Dr. COFFIN'S system holds out the helping hand, to snatch them from pain and death, and such he invites to a participation of its benefits.

These, sir, are some of the considerations which have determined my judgment to the Botanic Practice of medicine. I am fully confident, that whoever will give it a fair trial, will rejoice at the success.

I am, respectfully, yours,
R. D. M.

[We would advise the careful and serious perusal of this important communication, as a distinguished and corroborating proof of all that we have advanced in favour of the Botanic Medicine and Dr. COFFIN'S system.—ED.]

LEARNING AND SCIENCE
VERSUS
PRACTICE AND EXPERIENCE.

IT is a remarkable fact, that nearly all that has been done for the improvement of the steam-engine has been accomplished, NOT by philosophers and scientific men, but by *labourers*, *mechanics*,

and *enginemen*. This, in whatever light it may be viewed, is a startling fact, yet no less startling than true: And surprising it is, that men, devoting their lives to learning and science, should not be able to discover those things that a poor illiterate man, whose principal employment is hard work, doomed to it for the support possibly of a family, should be able to improve upon anything, much less so complicated a piece of machinery as the steam-engine. It incontestably proves that the acquirement of mere learning and science is insufficient of itself to do that which an unlettered labourer has accomplished.

Again: let a landsman study navigation, be perfectly learned upon the subject, be able to work the lunars, &c.—place him in the middle of the ocean, and how would he proceed? Of course he would be in a dilemma, would know nothing practically, and must perforce let the vessel de driven at the mercy of the wind and waves. Would it be so with the common sailor, one that was practically acquainted merely with the working of a ship and a knowledge of steering? Certainly not: The latter would bring the vessel to port, and the former would conduct it—where?—anywhere, everywhere but where it was wanted to arrive.

As it is in mechanical and nautical affairs, as well in truth as in most conditions of life, so is it most certainly with the learned and scientific in the medical profession. We would not repudiate anatomy, nor the branches of learning studied by the faculty—they are important in their places, especially anatomy—but we would and do repudiate the practice of medicine upon merely theoretical opinions; we do repudiate the general practice of the faculty, and do assert that they are not consistent in carrying out and adhering to their principles when they are hostile (which they are) to the Medico-Botanical System of Dr. COFFIN. They decry and scoff at our practice, yet acknowledge that practice and experience, upon which our system is based, make the most successful man. The only difference then is, they are the diplomatised, authorised empirics; we the unauthorised. In proof of which we may cite the advice of a medical man to his pupils (viz.), that "when you (the pupils) observe an old woman gathering herbs, see what she is gathering, and for what medical purpose: put this down in your notebook, for it will be good." Here we find a medical man, enshrined in diplomatised authority, embellished with the learning and learned technicalities of the schools, looking upon all else as mere quacks, yet descending from his high caste to advise his pupils to take lessons from illiterate old women; and wherefore? because her knowledge was the fruit of experience. What consistency was there in this? None. The plain fact of the matter is, that the faculty are now beginning to find out that their learning and medical acquirements are good only as adjuncts to the proper study of the cure of disease; that absolutely they may and can cure disease without the learning of the schools, that being merely subsidiary to the high employment of ministering to the relief of the afflicted, and *who* have compelled them to devote more of their time to the study of nature, and her simple, yet grand and unerring laws; but we, the Medical Botanists of Dr. COFFIN's school, we, styled by them the contemptible quacks and empirics of the present day—surely, if they covertly adopt and recommend our system, it argues that *theirs* MERITS the opprobrious epithets so liberally bestowed upon us, and not ours. The most enlightened members of the faculty, men who do honour to their high standing, acknowledge the necessity of studying nature and gaining experience in her unerring school: why, then, should they heap obloquy upon us for practising this part of their precepts? Simply because we have not a diploma; we are not authorised by government. All our experience, all our research, all our acquirements, all our study in great Nature's school, surely ought to stand for something in the estimation of all, even of the faculty, especially as the very course we pursue is recommended by their greatest men; but, alas! so blinded by prejudice are the majority, that we are scouted, traduced, and scorned; and why? Have we not performed cures when they have given the

sufferer up, when they have declared they can do no more for them—yes, in very numerous instances. Can the faculty say as much?

There is no kill or cure in our system; ours is cure without the kill; our botanic remedies can do no harm, but must do good. Can so much be said of the poisons of the faculty? What says that celebrated lecturer, Dr. Waterhouse, but that "he is so disgusted with learned quackery, that he takes some interest in honest, humane, and strong-minded empiricism, for it has done more for the art of medicine in all ages, and in all countries, than all the universities since the time of Charlemagne."

This authority confers more honour upon us than a thousand diplomas could, and yet we are traduced. Still such is the glorious certainty of our practice and system, that it bids defiance to the powerful array armed to the teeth against us; and the good time is coming, and will come, when our exertions and labours for the cause of suffering humanity will reap its rich and deserved reward.

WOMAN.

"Nature's 'prentice hand was tried on man,
And then she made the woman."

BURNS, *altered.*

FEMALE loveliness cannot be clothed in a more pleasing garb than that of knowledge. A female thus arrayed is one of the most interesting objects of creation. Every eye rests upon her with pleasure: the learned and the wise, the young and the aged of the opposite sex delight in her society, and affix to her character respect and veneration. Ignorance and folly stand reproved in her presence, and vice in his career shrinks abashed at her gaze. She moves the joy, the delight, the pride of the domestic circle, she excites the praise, the admiration of the world. A female thus armed, thus equipped, is prepared to encounter every trial which this uncertain state of existence may bring, either to rise with proper elevation to the pinnacle of fortune or sink with becoming fortitude into the lowliness of poverty, to attain with a cheerful serenity the heights of bliss, or endure with patient firmness the depths of woe.

THE INFLUENCE OF WHOLESOME DRINK.

THREE quarters of that stanch body which you bring with you to the task of perusing these pages, my firmly knit friend, notwithstanding substantial appearances, are nothing but thin water. If without your clothes you weigh 150 pounds, 113 of those pounds are mere liquid, which could be poured through the spout of a teapot, or even the channel of a tobacco-pipe. Are you surprised to find yourself of so watery a nature? If you are so, you have no good ground for your wonder, for I can tell you that liquid has plenty of work to perform for your good.

Water is continually being drained away out of the supply-pipes of your body, and therefore requires to be as constantly restored to them, unless the blood is to be allowed to get so thick that it can no longer flow freely through their channels. The Great Architect of your body purposed that this should never happen, because, if it did, all the powers of your frame, which are sustained by the blood-movement, would suffer and flag. Therefore He has contrived a plan to prevent such thickening of the life stream.

So soon as your blood has begun to grow thick and to flow slowly, it moves unwillingly and lazily through the structures of your throat, as well as through all other parts. The thick, lazily moving blood there causes that unpleasant feeling which you call thirst—a feeling which is so disagreeable, that the instant you are conscious of it, you seek to get rid of it by swallowing drink.

When you drink water to quench your thirst, the thin liquid goes down into your digesting-bag, and is then directly sucked up into the supply-pipes which run about all over its inside. There it thins the thickened blood, goes with it to the heart, and is thence pumped out through the channels of supply, taking its part in all the operations of life, diluting and changing here, and carrying and cleansing everywhere. There are various outlets through which the waste is poured away, but the principal of these lie upon the skin and in the kidneys. Before it is poured away, however, it

actually forms part and parcel of all the structures of your frame; is for the time a portion of your life! It runs not merely through the digesting-canal of your body to the outlets for waste, but actually through the blood, and heart, and brain. Hence you see good drink may carry health, and vigour, and activity to all these internal and delicate parts; but bad drink may at once introduce mischief there, and danger, and disease.

The best possible drink is, of course, that which has the most power to fulfil the main office for which it is required; that is, the keeping the blood duly thin, for easy and ready flow. In its capability to do this, Nature's own liquid, pure water, stands altogether alone. No other fluid is at once so incorruptibly impartial, and so generously free; so ready to dissolve, so willing to carry, and so frank to return what is entrusted to it. When healthy people drink freely of pure water, the solid substance of their frames is actually washed and worn away, in consequence, more quickly; but this is directly made up to them by their getting stronger appetites, and eating more solid food. The food replaces the wear, and they do not waste, although their structure is more quickly consumed. The wear and tear go to work instead of to waste.

People do not, however, drink only pure water, perfect as that liquid is for the performance of the service for which it is swallowed. An immense amount of ingenuity and industry is spent in preparing beverages which are commonly preferred to plain water, because they have very agreeable flavours, and because it is believed that they are nourishing as well as thirst-quenching. These agreeable artificial beverages are principally prepared by the agency of boiling water, and the leaves and seeds of certain vegetables, which are cultivated for the purpose very extensively in various quarters of the globe.

Of these vegetable-furnished beverages, some are swallowed as soon as they have been prepared, and even while the warmth of the water is in a certain degree retained. Others are kept for some time, and allowed to pass into a condition of half decay, before they are used. The former class consist of the tea, coffee, and cocoa, so familiarly known in most English households, besides being employed daily in a greater or less degree, by more than seven hundred millions of human beings.

Few persons in the British isles undervalue the fragrant drink, which pours forth its pleasant, leafy smell upon almost every table in the United Kingdom, from the cottage to the palace, once or twice in the day. British tea-drinkers are not, however, aware how enormous is the quantity of the fragrant leaf that is required every year for their supply, although only distributed to them by small spoonfuls. Scott Russell's monster steam-ship, in process of construction at Millwall, is considerably longer than the largest cathedral in England, and when finished would be able at once to waft across the sea an army of ten thousand men, with all their baggage, arms, and ammunition; or it would carry a compact burthen of twenty-five thousand tons. That monster ship, six times bigger than the largest line-of-battle ship in the Queen's service, would scarcely be able to bring to England, in one freight, the tea that is consumed in the island in a single year. Every twelve months, sixty millions of pounds of tea are made into drink in the British isles, besides thirty-five millions of pounds of coffee, and four millions of pounds of cocoa, articles which are, as will be presently seen, near kindred of the fragrant leaf, although seemingly of so different a nature.

Upon the hill-sides, in the remote land of China, there are thousands of acres of gardens filled with rows of plants, that look from a distance something like large gooseberry bushes, but which upon closer inspection more nearly resemble stunted japonica shrubs. Almost as soon as these shrubs have fully put forth their young leaves, men and women come round, and strip their twigs and branches bare. They then carry away the leaves, and dry them with much care, partly by exposure to the sunshine and air, and partly by the heat of fires of charcoal, until two-thirds of their weight have been steamed away. When the leaves are dried quickly, the shrunk and crisped foliage is of a green colour. When they are left moist for a longer period, and

are dried more slowly, they turn of a dull-black hue. In either case, the crisped and curled leaves form the tea, portions of which are sent over the sea for the use of English tea-tables. The ground which is devoted to the growth of the tea plant, in China, would, if all joined together, form a farm nearly as large as Wales! Three millions and a half of acres are there covered with tea-bushes; and the entire produce of these acres in tea, is fifty times as large as the amount which is consumed in England. Fifty monster ships, like the one building at Millwall, would not hold therefore the tea produce of a single year. Of tea, and of its allies, coffee and cocoa, the earth yields yearly not less than three thousand millions of pounds—a quantity which would take a grocer a hundred years to weigh out, if he worked at the rate of a pound every second. More than half the inhabitants of the earth are daily engaged in the occupation of consuming this vast amount.

Although these favourite beverages are now so extensively used, this has not been very long the case. In the year 1664, the East India Company made a present to the Queen of England of two pounds of tea, considering it a very rare and choice gift. The Chinese themselves do not seem to have drunk tea generally before the seventh century. Cocoa was brought from Mexico to Spain in the middle of the sixteenth century for the first time; and coffee was not seen in London until the seventeenth century. Hence it appears that these drinks are at least not actually necessary to human beings. The forefathers of the present generation did without them for centuries.

When articles, which were scarcely known to be in existence three centuries ago, have so rapidly spread themselves through the world that they are now viewed almost in the light of daily requisites by the larger half of mankind, it may very safely be concluded that there is some strong reason for the result. The reason may be a good one or a bad one; the articles may be found to be of great service when employed; or they may be merely felt to produce agreeable feelings not necessarily serviceable. Is it possible to determine in which of these predicaments tea and its allies stand? As a first step towards the formation of an opinion in this matter, it will be quite worth any interested person's while to satisfy himself by a very easy experiment that there is something in tea which careless notice and common use would never discover. Let him simply rub a teaspoonful of dry tea-leaves to powder, and place it in a flat watch-glass, standing on the hot hob of a fireplace, a piece of stiff white paper being twisted up into the form of a sugar-loaf, and covered over the watch-glass and powdered tea. So soon as the tea has become very hot, a white steam-like vapour will rise from it, and be entangled in the paper, and if the paper cap be removed after a few minutes and be unfolded, its surface will be found to be sprinkled with a white glittering powder, something like pounded glass, or very fine salt. The powder is the vapour, turned into the powdery state, after it has been entangled by the paper. There is so much of this white powder in tea, that three grains can be procured from half an ounce of the leaves. Fifty pounds of good tea would furnish a pound of the white powder.

Having found out the existence of this white powder, hidden away in the black or green leaves of tea, the next thing we have to do is to discover, if possible, what its nature and character are. The chemists have given it a learned name—that will not help us much in our present proceedings, still it may be convenient to know the curious substance by the title it bears among learned men. The chemical name of the white powder is theine. This means nothing more than the white powder contained in tea. There is another really helpful consideration, however, which naturally occurs while we look at this substance. "Where did the white powder come from?" How did it get into the tea-leaf.

The white powder of the tea was formed in the leaf, when that leaf was stretched out in the Chinese sunshine, as the plant grew on the side of the warm Chinese hills. It was made out of the food which the plant sucked in from its native soil and its native winds, in the little chambers of its living

structure, at a great expense of wise effort and skill. No human artist can make a grain of that white powder, if he spends a life-time in the trial. In the little tea-leaf, as it grows on its sunshiny hill-sides, the most subtle and cunning powers are set to work by the wisdom which knows everything, and by the hand which holds and directs all things in man's wonderful world. The result is, that out of coarse earth, and thin vapours, and fostering sunshine, the ingredients of the white powder are gathered together, and mixed, each in its proper proportions, and in the right manner, in the hidden recesses of the growing plant.

(To be continued.)

A TRIBUTE TO MEDICAL BOTANY.

To Dr. Coffin.—Sir,—Some eighteen years ago I became acquainted with your admirable system of Medical Botany by attending one of your lectures; but one lecture was not sufficient to enable me to do without the doctor in my family. Four years later, one of my children was taken ill with an inflammation on the lungs. We sent for the most skilful doctor in the neighbourhood we then resided; but, alas! he mistook the disease, treated him wrongly, and the child died. Since then my wife and I have given our attention to the study of Medical Botany (the simplicity of it enables all persons of an ordinary capacity to do the same), and although troubled with colds, &c., the same as other families, we have never since had occasion to call in the doctor.

I feel this knowledge of ourselves to be of such infinite importance to the human race, that I long to see it more widely diffused, and think that an hospital devoted to your system, will materially assist to promote that object. Will you kindly put my name down for £10 in your list of subscriptions? and if it is ever in my power, I shall have great pleasure in augmenting the sum.

I remain, sir,
Yours with respect,
John Miller.

18, *Upper George-street, Bryanston-square,*
16*th November*, 1857.

IMPROVEMENT IN THE BOTANICAL JOURNAL.

To Dr. Coffin.—Sir,—For some time past I have observed with regret that the Botanical Journal has been the subject of a languishing disorder, and I could only account for it on the supposition that you were so occupied in attending to your numerous outlying patients that you were necessarily compelled to leave it, almost, to take care of itself.

I am now extremely glad to find that that which had long been so evident to your readers has at length received the avowed confirmation of your own judgment, and that the result will be, as indicated by your personal promise, the absence of articles which are foreign from the object of the Journal, and the presence of others more in accordance with its title; whilst I cannnot but congratulate both you and your readers on the resolution you have arrived at to embellish its pages with descriptions and drawings (the latter the more acceptable for being coloured) of the various herbs used in your practice, and to the virtues of which your patients are so much indebted.

In time, I have no doubt, sir, it will be sufficiently demonstrative that, after a wholesome purgation and cleansing of its columns, and the "throwing in a little bark" by way of tonic, you will furnish forth a Journal that will not only be adapted to the taste of its readers, but will be a worthy exponent of the valuable doctrines which it professes to promulgate.—I am, your obedient servant,

A Reader.

AN ADDRESS
TO
THE FRIENDS OF MEDICAL BOTANY, AS FOUNDED BY DR. COFFIN.

A POEM BY A MEDICAL BOTANIST.

Ye worthy, honourable, philanthropic few,
The muse shall weave her brightest wreaths for you,
Who in humanity's bland cause unite,
Nor heed the cause by interest aimed, or spite.
Like the great pattern of benevolence,
He gives blessings, to the poor dispense,
And though opposed by folly's servile brood,
Enjoy the luxury of doing good.
As time rolls on, with rapid eye behold
The laws of nature constantly unfold!
Her evolutions wond'rously explained,
Effects and causes clearly ascertained.
Let not self-interest, prejudice, or pride,
Induce mankind to set the means aside,

Means which, though simple, are by Heaven designed
To alleviate the woes of human kind—
Life's darkest scenes with radiance to cheer,
Wipe from the cheek of agony the tear,
Redeem the pilgrim verging to the grave,
The balm bestow that will the victim save.
Such blest results, so frequently ensue,
The world must look with confidence to you.
Union's the strength, nerve, life, and soul,
That pervade, sustain, and guide the whole.
In despite then of enemies and laws,
You'll give a powerful impulse to the cause,
You'll sound the march of *true botanic skill*,
And give a deadly blow to calomel.
The mineral practice must be laid aside,
Its ravages have spread so far and wide,
That men, alarmed, begin their bane to shun,
And in disgust from all their poisons turn.
Botanic means alone have power to heal;
Remember well the law, "thou shalt not kill."
COFFIN has led the way, let friends attend
With zeal, the mighty cause of truth defend;
Let none *desert*, and turn to *devious* ways,
For filthy lucre or the love of praise.
Within his heart, may every Botanist find
A single aim to serve all human kind—
To spread the noble system far and wide
As earth extends or ocean rolls her tide.

RULES OF LIFE.—The longer I live the more I feel the importance of adhering to the rules which I have laid down on such matters:—1st. To hear as little as possible of whatever is to the prejudice of others. 2nd. To believe nothing of the kind till I am absolutely forced to it. 3rd. Never to drink in the spirit of one who circulates an ill report. 4th. Always to moderate as far as I can the unkindness which is expressed towards others. 5th. Always to believe that, if the other side were heard, a very different account would be given of the matter.—CARUS'S *Life of Simeon.*

SELFISHNESS AND SYMPATHY.—If the constitution of human nature and the structure of human society alike render it difficult for the human heart to be affected with a pleasure in no degree derived from—absolutely and totally unconected with—sympathetic association, of that complex pleasure which arises out of social intercourse, partly selfish and partly sympathetic, how far sweeter the sympathetic than the selfish part! and as the sympathetic preponderates over the selfish, how vast the increase of pleasure! And when matured, exalted into affection—affection, that holy emotion which exerts a transforming influence over the selfish part of human nature, turning it into the sympathetic; affection, which renders the happiness of the beloved object inexpressibly dearer to the heart than its own; affection, among the benignant feelings of which as there is none sweeter, so there is none stronger than that of self-devotion, nay, sometimes even of self-sacrifice; affection, which is sympathy pure, concentrated, intense—Oh how beautiful is the constitution of this part of our nature, by which the most transporting pleasures the heart receives are the direct reflection of those it gives!

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G. CALDWELL,

Surgeon and Practitioner of Medical Botany, Proprietor of the Botanic Dispensary,

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Mr. CALDWELL may be consulted daily, from 10 to 12 in the morning; from 2 to 4, and from 6 to 8 in the evening (Sundays excepted).

NOTICE.

Dr. COFFIN may be consulted gratis, as usual, every Saturday evening, from four to eight o'clock, at the Botanic Establishment, No. 24, Union-street, East, Spitalfields. *Patients not admitted to the waiting-room after eight o'clock.*

Dr. COFFIN may also be consulted at his residence, 24, Montague Place, Russell-square, daily *(Sundays excepted)*, from one to two o'clock (fee one guinea), on any day except Monday, on which day the fee will be five shillings only.

Advice gratis, every morning, from ten to one o'clock, at the establishment, No. 134, High Holborn, nine doors from New Oxford-street, nearly opposite the London and Westminster Bank, Bloomsbury Branch.

The Botanical Journal and Medical Reformer is published Fortnightly, at No. 134, High Holborn, London, where all orders must be addressed.

COFFIN'S

BOTANICAL JOURNAL

AND

MEDICAL REFORMER.

"Human experience, which is constantly contradicting theory, is the great test of truth."—Dr. Johnson.

No. 250—Vol. VIII. SATURDAY, DECEMBER 12, 1857. Price 1d.

THE GLEANER, No. 3.

The following extracts are made from a letter that was originally addressed to the editor of the "London Gazette of Health." Coming from such a source, it may be thought worthy the attention of certain readers who are not prepared to give a candid hearing to anything on such subjects, unless supported by what they esteem scientific authority. The writer observes: "Bleeding, you know, has lately been extolled (among the faculty) as a certain remedy for *diabetes*, and some cases to which this name was given, have been published in our medical journals in proof of its efficacy. My late friend, Dr. Bickley, of Haslar Hospital, a physician of experience and observation, being afflicted with *true* diabetes, determined to give this new treatment a fair trial immediately, as soon as he discovered he had the disease, notwithstanding it appeared to be very injudicious. He was bled by his friend very copiously; his strength reduced by the loss of blood; the quantity of urine was not diminished or its qualities altered. Encouraged by the extravagant recommendation of the remedy, he determined to persevere. He was accordingly bled a second time to the same extent. His vital powers were so far reduced by the second operation, that he was obliged to take to his room, and in a few days *discharged his debt to nature.*"

In looking over the above extract, we were deeply impressed by the solemn apostrophe of the writer, who subjoins to the preceding narrative the exclamation, "Would to God those persons who first recommended this treatment when he (Dr. Bickley) commented on this *trifling with human life*, the day preceding his dissolution, had been present —'Had I pursued the tonic plan of treatment, which the symptoms of the disease indicate, I might have lived many years!'" We see, from the above case, how the learned faculty disagree one with another. Among a certain class, the lancet is accounted a certain remedy for diabetes; it comes recommended by high literary authority. Dr. Bickley, contrary to his own good sense, concludes, these learned doctors are wise men—they say bleeding is a most infallible remedy—his credulity leads him on the fearful experiment; a son of Æsculapius applies the sharpened steel, out flows the vital stream, and, as the tide of life is drawn off from the fountain, his system begins to sink, the powers of nature are depressed, and her expiring taper yields but flickering light. Yet, strange the infatuation! he repeats the alarming process, reduction! succeeding reduction! he sits on the verge of the grave, a place where truth seldom fails to lift her standard; he calls the remedy, prescribed by the wisdom of the schools, "*trifling with human life;*" while he laments, too late, the folly of his course, and, in pathetic lamentation, wails his untimely fate; death drops his dark curtain, and *Bickley is seen no more!* If a man of Dr. Bickley's information and standing in society is liable to be duped to death by such a superstitious adherence to authority of the schools of medicine, those who blindly

follow in the common walks of life have need to be on their guard.

"Another regular puff," says the same writer, "is the oil of turpentine (by injection), a remedy for lockjaw, by a Dr. Phillips, of Andover, which was published in the "Transactions of the Medico-Chirurgical Society of London for the Promotion of Medical Science." A case of lockjaw occurring soon after the puff appeared, the medical attendant commenced with the remedy; the injections proved unavailing; the remedy was freely applied to the surface of the body, but, alas! although the body was well turpentined, both internally and externally, the disease advanced and terminated in death; and the medical attendant gave it as his opinion, that the disease was aggravated by it, and of course its fatal termination was accelerated by it."

"Cases might be adduced of other remedies puffed off by medical men, as lunar caustic in epilepsy; arsenic in tic doloureux; the deadly nightshade in cancer, &c. &c." An inquiry naturally arises in the minds of intelligent, reflecting persons, how is it possible that there should be so much diversity and opposition of opinion among the learned faculty, about disease and the remedies they prescribe? To this we would answer:— First: when the diplomatic physician is consulted, he according to learned custom and vulgar expectation, wisely casts about him to devise a name. The more unusual and extraordinary the name, which he decides by some prominent symptom or symptoms, the wiser he feels, and the more he excites the admiration and confidence of the ignorant multitude. He then commences prescribing and administering for the name and symptoms or effect of disease; but the cause of disease is overlooked and neglected. Second, another reason is, they have copied their information one from another. Thus antiquated and exploded remedies have been revived; great names and far-famed universities have imposed the vagaries of learned imaginations on the credulous multitude. Holding the students of medicine and philosophy in humble, obsequious pupilage, the path of faithful inquiry has been hedged in on every side. Third: "another great misfortune is," says our learned writer, "that in consequence of the medical art not being founded on a proper basis, or knowledge of the animal functions, practitioners make facts lead to their theories; and for the purpose of establishing their opinions, magnify symptoms into primary diseases. Hence, affected with *indigestion*, apply to *Dr. Latham*. If he (the patient) should make a little more *urine* than usual, the chance is, the doctor will pronounce the complaint *diabetes*, in consequence of having made a book on the causes, treatment, &c., of this disease. If the same patient takes the opinion of *Dr. Curry*, he will term it bilious, and refer the cause to a morbid state of *the liver*. If he should consult *Dr. Bull*, he will probably attribute it to effusion of serum in the air-vessels of the *lungs*. *Dr. Bailey* will expect incipient organic diseases of the *viscera*; *Dr. Smith* will talk of effusion of serum in the ventricles of the *brain*; *Dr. Solomon* will attribute his disorder to *nervous debility*; *Dr. Luxmore* will intimate that it is a forerunner of *dropsy*; and *Dr. Everard Home* will endeavour to detect the causes in the urethra. Such every medical man of experience in the metropolis knows to be the degree of *perfection* to which the healing art is brought by the labours of the moderns." Our object in presenting this fact to our readers and friends is very different from what we imagine influenced the original writer. We are not to look to the proud halls of science with any hope to see society released of such gross imposition from those contaminated fountains. THE REMEDY IS WITH THE PEOPLE! They must seek the light of simple truth, in the undeceptive paths of experience and observation; they must aim at an equal and universal diffusion of knowledge among the rising generation. We do not by this mean the knowledge of the dead languages, for those languages do not give us a knowledge of disease, its cause, nature, or remedy, but such knowledge has for ages constituted a veil between those accounted learned, and those reputed ignorant, in consequence of which, the former have concealed from the latter their intellectual barrenness, and literary darkness that hangs around them. *Medical knowledge* (we mean all

that is absolutely important) consists in a knowledge of a few facts, that an intelligent housewife, or even kitchen-maid, may be often made to understand, and taught successfully to apply, and even from the pages of our simple but scientific "Guide to Health," there are now tens of thousands that are using no other means, even when the destiny of whole families are concerned, and not one, or scarcely one, have ever received a medical education; and there is not a vestige of knowledge in the whole routine of medical science, of indispensable consequence, that cannot be more easily communicated, and more thoroughly understood, in plain English, in the present highly improved state of our language, than all the foreign technicalities the schools of classic science can command.

24, *Montague-place, Russell-square.*

ANOTHER VICTIM TO ALLOPATHIC PRACTICE.

Our readers no doubt have seen an account of the very melancholy death of Mr. A. O'Brien Stafford, M.P., in the public papers; consequently a short summary of the facts, collated from the account of the inquest detailed in the "Dublin Freeman's Journal" of Thursday, the 19th of November, prefatory to our remarks and comments upon this lamentable case, will be sufficient.

The first witness, Michael Naughton, deposed that his master (Mr. Stafford) was in good health up to the 4th of November, when he was taken ill, and sent for Dr. Griffin, who bled, taking thirty ounces of blood from him, and gave him medicine which produced the following results, and was the occasion of the subsequent treatment, all being by the order and under the superintendence of Dr. Griffin, who left him at about nine that evening. During the night the bandage slipped, and his arm bled. I stopped the bleeding, and sent for Dr. Griffin, who arrived between seven and eight o'clock on the morning of the 5th, when he found Mr. Stafford so heavy and stupified that he gave him a good shake, ordered him to be taken out of bed and to be walked about the room. This continued for a quarter of an hour, but without effect. Mr. S. was then placed in a chair, and the soles of his feet beaten severely with a razor-strop by Dr. Griffin for twenty minutes, till the doctor's hands became blistered. Not being able to hit Mr. S. hard enough to waken him, and the strop breaking, the carpenter was got to make some battledores, about eighteen inches long, four inches wide, and half an inch thick, with which he was beaten on the soles of his feet, on the calves of his legs, and on his hands, five men taking part in the beating, which was continued from half-past eight, A.M., to half-past six, P.M., during which time a dozen of the battledores were broken about him, Dr. Griffin being all the time present. During the beating the arm again bled. After all this, Mr. S. seemed to arouse, and was put to bed. Dr. Wilkinson came, and had a private interview with Dr. Griffin; after which, in answer to a question I put to him, he said the loss of blood would only make Mr. S. weak, but he got an overdose of laudanum. Dr. Griffin, often during the beating, said, "If you let your master sleep half an hour, he will die." Before my master left Cratloe, and after he came to Dublin, he often said, "Dr. Griffin ought to be ashamed of himself for having given me so much laudanum;" and that, only Dr. G. was a licensed doctor, he would have been transported. Mr. Stafford was very weak and inclined to sleepiness up to his death.

Dr. Francis Hind sworn.—"Received a letter from Dr. Griffin respecting the case, but had a delicacy in producing it without Dr. G.'s permission, which was granted."

Sir Henry Marsh, Bart., sworn.—"I have a strong impression that the agonising pain endured by Mr. Stafford proceeded from gallstones, one of which commenced to get into the duct. Laudanum is the sheet-anchor for gallstones, fifty drops each of laudanum and hyosciamus constitute a full dose. One hundred and fifty drops of each, administered in two hours, I should consider a very large quantity. Nothing but excessive pain, endangering life, could justify it. I scarcely can conceive of any circumstance to justify giving two hundred drops of each, in two or even four hours. The bleeding would tend to increase the

narcotic powers of laudanum and hyosciamus. I am of opinion, that when I saw Mr. S., he had recovered from the effects of the narcotic medicine, and, except so far as it debilitated him, it did not contribute to his death. *Unquestionably* the narcotic medicines and the bleeding did debilitate him, and I think the debility did contribute to Mr. Stafford's death, but if he had had a perfectly sound heart, he would have recovered it all. The cause of Mr. S.'s death was extreme inanition or debility. The weakness and debility of his heart, the suppression of urine, and that bleeding during the flogging, were instrumental causes of death; that bleeding was the principal fatal cause. I do not think there was any mistake in the treatment, but it was very strong. Mr. Stafford was dangerously narcotised."

Mr. George Porter, surgeon, examined. —"Made a *post-mortem* examination of the body which proved fatty degeneracy of the heart, of which Mr. Stafford died. In this case, the loss of a small quantity of blood would be very dangerous; the exhibition of narcotics would weaken the action of the heart. To reduce a patient to such a state, that would require flogging of the soles of the feet to keep him awake, would be highly injurious. The beating of the soles of the feet did not cause debility."

The Right Honourable H. A. Herbert, M.P., sworn, who testified to the excessive debility of Mr. Stafford, as also to the dreadful state of his feet through the flogging. Mr. Stafford told him he was certainly convinced that the cause of his state, from which he would never recover, was the treatment to which he was subjected, and particularly alluded to the pain of the beating. Sir Henry Marsh stated to me that he had no doubt a mistake had been made.

Extracts from Dr. Griffin's letter to Dr. Hind, detailing the case:—"Among other things, in reference to this last illness of Mr. Stafford, Dr. Griffin states that he gave three emetics before action took place; after which he gave Mr. S. three or four full doses of laudanum, hyosciamus and ether, at intervals of half an hour. I think he took very near if not quite half an ounce of each, within two hours, without the least effect. I then took a good dash of blood from his arm; still the pain did not abate. I then, after an interval of half an hour or so, gave him another dose of laudanum and hyosciamus. In half an hour he became easier, and fell into a quiet sleep, and spent the night quietly. On my next visit at seven next morning, I settled his arm, which had bled profusely through the slipping of the bandage, and, with some surprise, observed that there was considerable heaviness about him, with a constant tendency to sleep and occasional stertor. This increased about eight, A. M., and then I became much alarmed, not knowing what point it might soon reach; the interval between giving the last dose of narcotics up to this time being about eleven hours and a half. The upshot of this matter was, that Mr. S. was walked about the room until it was impossible for him to do so; besides giving him coffee, brandy, ammonia, and other stimulants: he became so bad—lost all consciousness —all power of swallowing—and could only be roused by the most painful bastinadoing with flat deal sticks. Dr. Wilkinson and several of his men assisted me. This beating was continued from half-past eight in the morning till half-past six in the evening, which made his feet in a dreadful state. After six the symptoms wore off rather rapidly, and before seven all immediate danger was over. There are two ugly sores on his feet."

The letter to Dr. Marsh is nearly a counterpart of the above.

Dr. R. W. Smith, on being questioned by Dr. Griffin, replied that he thinks the only rational explanation that can be given, upon the eleven and half hours' interval, between taking the last dose of narcotic medicines, and the commencement of the severe symptoms, is the second bleeding during the night, from the accidental slipping of the bandage from the arm; also that he is of opinion that the narcotic effects were not postponed, but did not come on with full severity, until after the accidental bleeding. Dr. Porter concurred with Dr. Smith in the above particulars.

The coroner explained that he telegraphed to Dr. Griffin, because he understood an imputation was cast upon Dr.

Griffin's professional skill and character, and wished him to be present.

In committing the case to the jury, the coroner said, Dr. Griffin could not be held accountable for the death of Mr. Stafford, unless he had done anything by mistake, or in gross ignorance had done some act or administered medicines to Mr. Stafford, which were the immediate cause of death, or such as a competent medical man would not do. Were they of this opinion, they would find accordingly. There was no doubt that the immediate cause of death was debility.

The stomach of the deceased gentleman had been removed, for the purpose of submitting it and its contents to a chemical examination, but it was too much decomposed to admit of a satisfactory one.

The verdict.—The jury were unanimously of opinion, that Augustus O'Brien Stafford died from natural causes, and that no blame attached to Dr. Griffin for his medical treatment of that gentleman, during his last illness.

We have made the above summary from a very careful perusal of this distressing case, for the information of those who have not had an opportunity of reading it in the public papers; and for those who have, the summary will be a guide as respect our comments, &c.

In taking the evidence in rotation, we commence with Michael Naughton's, who was a servant of the deceased gentleman for twenty-three years, who detailed with much clearness the whole case, and all the suffering to which his unfortunate master was subjected; and it is natural, that from the long period he was the servant of Mr. S., he should regard him with strong affection, and be very desirous of obtaining the opinion of other medical men respecting him: hence his question to Dr. Middleton, as to what the doctor thought of his master; of which more anon.

As to Dr. Hind's delicacy, would the doctor have shown the same delicacy with any communication sent by a Medical Botanist, were it possible, with the Botanical System of Dr. COFFIN, for him to be placed in the position of Dr. Griffin? We very much query it. Truly, "a fellow feeling makes us wondrous kind!"

The evidence of Sir Henry Marsh strikes us to be, without exception, the most illogical, lame, and unsound piece of reasoning we have ever met with from a person professing to be educated and enlightened.

1st. Nothing but excessive pain, endangering life, could justify giving one hundred and fifty drops of laudanum and hyosciamus in two hours. Could even the pain experienced by Mr. Stafford justify it? or is it justifiable to produce other symptoms equally, if not more dangerous, in order to ease the pain? What, then, shall we say when Dr. Marsh affirms, that he cannot conceive a condition to justify giving two hundred drops of each, in even four hours? Therefore, Dr. Griffin could not be justified under any circumstances in this case; in fact, nothing could justify him.

2nd. The narcotic taken did not contribute to Mr. S.'s death, excepting so far as they debilitated him. What debilitated him? The narcotics; consequently they did contribute to his death.

3rd. The narcotics and the bleeding did debilitate him, and I think the debility did contribute to his death; he died of extreme inanition and debility. Therefore, what caused the debility must have caused the death.

4th. The suppression of urine was an instrumental cause of death. "One of the marked effects of opium is to suspend all the secretions except the skin." (See Taylor, on "Poisons," Page 582.) What caused the suppression of urine but opium? Yet, it was not opium, but debility and suppression of urine which were instrumental to death! Truly, this is, as in the other clauses, taking the EFFECT for the *cause!*

Notwithstanding all this, Dr. Marsh says, "I do not think there was any mistake in the treatment, but it was very strong;" and allows that Mr. Stafford was *dangerously* narcotised.

As to there being no mistake, we are at a loss to understand the doctor's meaning, for it clashes with Dr. Wilkinson's statement, that "Mr. Stafford had an overdose of laudanum," and his own, that "Mr. Stafford was dangerously nar-

cotised;" therefore, such overdose and narcotisation must perforce be a mistake and error.

Again: Does the proper treatment alluded to simply depend upon the administration of laudanum, irrespective of quantity? In the doctor's opinion it appears to be so; for, if a person requiring a sedative be treated with opium, the practice being, according to Dr. Marsh, right, we may infer from his statement any quantity might be given, because the treatment is right, though it would be very strong. This really is very poor reasoning, and not in accordance with our plain sense.

From a review of the whole of Dr. Marsh's evidence, we might with just as much propriety apply his line of reasoning to the case of the malefactor, who was hanged on Monday, the 23rd inst., at the Old Bailey. Thus, I am of opinion that the rope and fall, except so far as it suffocated him, did not contribute to his death. Unquestionably the rope and fall did suffocate him, and I think the suffocation did contribute to his death. The weakness of his neck, the suppression of respiration, the fall and suffocation, were instrumental causes of his death. I do not think there was any mistake in the treatment, but it was very strong. Thus, by parity of reasoning, it was not the rope nor the fall which caused his death, but suffocation; consequently the rope and fall could not be the cause of death. Now would suffocation, which produced death, have occurred without the attachment of the rope and subsequent fall? Certainly not. Would then debility, which produced death so suddenly in the case of Mr. S., have happened without the bleeding and overdoses of narcotics, joined to his terrible beating? We positively assert that it would not.

Mr. Porter states, from the *post-mortem* examination, that Mr. Stafford died of fatty degeneracy of the heart; that the loss of blood, exhibition of narcotics, and the reducing a patient to such a state as to require flogging to keep him awake, would be highly injurious; and yet the awful beating did not debilitate Mr. S.: so neither debility, nor wrong treatment, nor flogging, was the death of Mr. Stafford, but fatty degeneracy of the heart. This indeed has been a fine loophole for all to get out of, but it will not do for common sense. The plain question is, Would Mr. Stafford have died so suddenly had he not been subjected to such acknowledged strong, rash, dangerous, injurious, and we may add killing, treatment?

The Right Honourable H. A. Herbert, in the course of his evidence, states, that Mr. Stafford was convinced that the cause of his death was the treatment to which he was subjected, and that he had taken no medicine except from Dr. Griffin. Here Dr. Marsh says to the Right Honourable Herbert, that he has no doubt a mistake has been made. Does this agree with Dr. Marsh's statement? We think not.

Dr. Griffin's letter to Dr. Hind states, "Mr. Stafford spent the night quietly." See Naughton's evidence. All the symptoms detailed are in accordance with narcotic poisoning.

If Mr. Stafford had a quiet night, would the bandage have slipped? A mere tyro in a druggist's shop would have bound the arm better.

On the coroner's observations and charge to the jury.—No one, upon a serious consideration of the case, and evidence adduced, could say but that Dr. Griffin had committed a mistake, and that the medicines administered, with the treatment pursued, induced the death of Mr. Stafford, or were the active and promoting cause; and the coroner states that there was no doubt that the immediate cause of death was debility.

Again: It surprises us that the stomach should have not gone under a thorough examination. Mr. Stafford had been dead only forty-four hours; surely decomposition could not have so far advanced in that time as to preclude its investigation. This looks very suspicious; but as to what could have been proved by the stomach, it is now impossible to say: it is involved in darkness.

The verdict is, to all intents, unsatisfactory and indecisive as to natural causes. It is just as natural for a man to die from the effects of opium, arsenic, strichnia, &c., as from any other cause; and as to no blame being attached to Dr. Griffin, let those who read and seriously consider what is here advanced decide.

From all that has been advanced, a

greater example of allopathic rashness, hardihood and tergiversation never came under our notice. Great exertions evidently have been made by medical parties to shield Dr. Griffin from the consequences of his medical turpitude, which has gained him the very *remarkable* and LUCID verdict of the jury. So far the case is legally disposed of; but, in spite of all, men will compare and judge for themselves, notwithstanding all legal settlements.

It is more than probable, that during the pending of the recent Medical Bills before Parliament, Mr. Stafford might have had some conversation with our esteemed friend and advocate THOMAS DUNCOMBE, Esq., the Member for Finsbury, upon Medical Botany and our system, which led Mr. Stafford to the conviction that he was erroneously treated. Be this as it may, still the above case is no feather in the cap of allopathy: it is playing with edged tools most foolishly and incompetently, even unto death. A thorough revision, nay, alteration and reform of the poison system, and the administration of poisons, is imperatively demanded. All the poisons of the pharmacopœia should be consigned to oblivion, entirely repudiated; and, in their place, nothing else used but Nature's great restoratives, the health-dispensing Botanical Medicines, which she has so thickly strewn in our paths, and which we may with such ease obtain; and as the safety of life and restoration of health are subjects of the most paramount importance to mankind, our best energies shall be constantly devoted to this so glorious a cause.

In conclusion: It is astonishing, and will remain an astonishment to future ages, that the very rankest poisons are the greatest remedies now in use in the world, and have been for at least fifty years past. It would be a melancholy tale, could it be told, the millions who have perished through this practice.

INCREASING SALE OF OUR JOURNAL.

To the Editor of the Botanical Journal.

SIR,—I have often been afraid that the Journal having been so long in a sickly state, it was nigh unto death, but I am most happy to perceive that the co-operating efforts of Dr. COFFIN and yourself have restored it to that healthy and vigorous tone which it has so long lost, through the nonadvocacy of the fundamental principles of the Botanic System laid down in Dr. COFFIN'S "Guide to Health;" for you will find, sir, that parties who appreciate the Botanic Practice, are averse to reading from time to time those *washy* articles which disfigured its pages, being diametrically opposed to that for which the Journal was originally intended to build up and establish (viz.); to confirm those for whom it was written in the faith; to convince others of the soundness of our doctrines and the error and uncertainty of the old school practice of medicine. I hope that with a steady perseverance in the unbeaten track, and with the assistance of the numerous agents, there will be a large increase of the sale of the Journal; for which purpose I have adopted the following mode to increase its sale: I have solicited and obtained at present ten friends, who take an interest in the system, to take six Journals each and sell them amongst their friends: by this means I have increased my sale from three dozen to six and hope to increase still more. If each agent would double his sale, we should soon have an enlargement in the size of the Journal.—Hoping the hint will be taken,

I am, yours truly,

JOSEPH NADEN.

204½, *Shales-moor, Sheffield.*

DR. COFFIN'S BOTANICAL SYSTEM ON SHIPBOARD.

TO DR. COFFIN.

DEAR SIR,—In justice to yourself and to the cause you advocate, I beg to submit to you, and if you think it advisable, to the readers of your highly valuable Journal, the following observations:—

In the early part of the present year, I left the north of England in command of a ship, bound to Rio de Janeiro. We had a remarkably quick run out, accomplishing the run from port to port in thirty-five days. On our arrival I was warned by the Brazilian officials of the prevalence of yellow fever at their port, and advising the necessity of paying strict attention to the sanatory condition

of the ship; also requesting, that at the first appearance of the malady, to lose no time in sending off the stricken one to the hospital, as, at the hospital, they professed to have found the very best means to overcome that fell disease, if taken in time. I did certainly think, that the frequency of late of the visits of that disease among them, ought to induce them to try the best means for the cure of the sufferers from yellow fever, and I also knew, that on board ship there are not the conveniences nor attentions necessary for a sick person. hence, on the first appearance of the fever (it was a boy who had the first attack), I had him sent off to the hospital immediately. The Brazilian Government are certainly deserving of great praise, inasmuch as I believe, to the best of their knowledge, they do use all the means possible: they have the hospital in the most healthy part of the harbour, the building being commodious and airy; they have also a steamer with a medical officer on board, that goes round the harbour two or three times a-day, and wherever the signal is hoisted, which is the national flag at the main, they come as speedily as possible and take the sufferer off to the hospital. Some days after, the chief mate was taken ill. I prescribed for him according to what he had told me were the symptoms. I gave him some opening medicine and advised him especially to keep his extremities warm; in fact, to go to bed and get a good sweat; but next morning I found him shut up in a close, narrow room, in a temperature of eighty-four degrees and upwards, his head and upper part of his body covered, and his feet uncovered. I saw by the state he was then in, that he was much worse; so, in order to do the best for the poor fellow, I had him off to the hospital immediately. Next day, two others, the carpenter and a seaman, were sent to the hospital, both being ill with yellow fever. That same day I was taken ill myself. I have had on previous occasions enough of the doctors, and their deleterious drugs; so, as soon as I found myself taken, I had four or five *holystones* to the fire, plenty of composition-tea, and *lobelia by teaspoonfuls* prepared. As soon as all was ready, into bed I got, and at it I went: hot stones at feet and sides, in cloths wet with vinegar; plenty of blankets on the lower parts of my body, and sufficient air in my room; also some opening medicine when it could be kept down. And how delightful the result! I may say that in less than four hours I felt the enemy had retreated, but it proved only for a time; however, the weapons that were effectual under God in driving him back once, I with courage made use of again, and the result was the same. I found that I had got a very severe attack. The fever was strong upon me at first, therefore it took some time to eradicate it; but in one week I was up, and at my duty, if I could say that I left it at all; for even at the time I was laid down myself, I had either two or three others to prescribe for by proxy, and I am happy to say, was successful in their cases. In one week from the time the mate left the ship he died, and, as I heard subsequently, was delirious the whole of the time. One of the seamen died the day following, both dying directly after the black vomit. I had several other cases while remaining at the port, but through the blessing of God and your valuable medicines, they recovered. The boy and the carpenter returned from the hospital cured, as was said; but, in reality, afraid to remain any longer. They informed me as to the style of treatment adopted at the hospital. First, they were supplied with a basin of castor-oil, containing full a half pint, which they must take, if they have to make two or three drinks of it: they are left without anything to eat for two days, but supplied with a sort of lemonade to drink; then, at the expiration of that time, there are four bottles brought, out of each of which they receive a portion daily: one bottle contains something very hot, another something very cold; another something very bitter and sour, and the other something exceedingly sweet: their rations are improved, but nothing like what would keep a child alive. Now this is a decided *case of contradiction!* and such is, I fear, often the state of the system after the above treatment, that it would be little short of a miracle did the patient survive. Well, sir, the time came for us to leave, and you may be sure I did not regret it had come, for that port is getting to be

very sickly indeed, especially at this time of the year. On our way to the Cape of Good Hope, five others and myself were laid down at once with another attack. As for myself, I was all right again in one day, through the blessed means formerly adverted to; and I am glad to state the others recovered also, though in a much longer time. The boy and carpenter, who were said to have been cured at the hospital, were by far the most formidable cases; in fact, at one time I had great fears that the boy was going to die—his limbs were quite cold and blue, although we were then in a mild, and in fact warm climate; but I think that with the speedy application of the *external and beautifully efficient internal heat*, I was the instrument, in my own and others' opinions, of rescuing him from death. Now, sir, the above facts speak for themselves: they may not be related in the most straightforward sort of manner; but such as they are, I leave them with you, and should you deem them of any service to yourself or the public, I shall be happy in thus giving my testimony to the good done, through the introduction and practice of that splendid system of Medical Botany as laid down in your invaluable "Guide to Health" and kindred publications, so frequently and ignorantly scoffed at, called "Coffinism."

I remain, dear sir,
Yours respectfully,
WM. WITTLETON,
Master of Bark "Isabella Hamilton,"
St. Katherine's Docks.
London, 31, *Havering-street, Commercial-road, November 28th*, 1857.

MR. TAIT'S TRIAL.

To the Editor of the Botanical Journal.

SIR,—I beg to acknowledge (through the medium of your columns) the kindness of those friends who have subscribed towards the liquidation of the debt incurred by my trial in August, 1850, on a charge of manslaughter, for administering Lobelia Inflata to a suffering friend, but which trial, I am happy to say, served to forward the interests of Medical Botany, and shew the extreme hollowness of the very strongest argument that its most prejudiced foes are able to bring against us.

The insertion of this will oblige,
Yours very truly, WM TAIT.

"WHAT CAN DR. COFFIN'S AGENTS KNOW?"
VERSUS
WHAT DO THE FACULTY KNOW?

To the Editor of the Botanical Journal.

SIR,—It must be evident to all who are acquainted with the conduct of the faculty, that they are *now* as wishful and as determined as they ever were to put Dr. COFFIN and Medical Botany down; but now, perceiving the futility of the direct falsehood and slander named in my last, they have again changed their "mode of attack," and evidently think the most likely way to accomplish their object is to destroy the confidence of the public in Dr. C.'s agents; and this they are trying to do by representing us as being too deficient in medical knowledge to understand the nature of disease and its treatment. If this were true, how is it that we so often cure their patients after they have given them up as *incurable?* That we do so is a fact that will bear the closest scrutiny, and I am satisfied that a fair examination of both sides of the question will show that this charge is based much more upon *fiction* than *fact*, and not only so, but that the faculty are justly chargeable with the ignorance and quackery which they desire to palm upon others.

It is well known that Dr. COFFIN has many agents who have for a long time made disease, and its treatment with herbal remedies, their study, and have for more than ten years been practising Medical Botany publicly and successfully, during which time thousands of youths have been bound apprentice, have served their time, grown up to manhood and are *now* successfully carrying on business for themselves, and no one thinks of insulting them with a "what can they know?" In fact people are aware that they ought to know their business, and if they do not, they are looked upon as having a "slate off." This being the case, how can the faculty, with any show of reason, apply their insinuating and insulting "what can they know?" to men who have been studying disease and its treatment for a longer period of time than is necessary to learn any other kind of trade? This looks like another allopathic stratagem by

which they think to gull the public and bring fish to their own net. They will not succeed: truth is against them and will ultimately prevail.

That Dr. C.'s agents are not such novices in the treatment of disease as represented by the faculty, and that they themselves are not so clever and deserving of respect as they wish to make the public believe, will be evident from the following *facts* which are given in answer to the question, "what can his agents know?" And if a tree is to be known by its *fruit*, or Medical Botany by its effects, we have much more reason to be proud than ashamed of that system of medicine by which we have been enabled to rescue many from the jaws of death, and restore them to the enjoyment of health, after the faculty had pronounced them *incurable.*

The first case I will name is that of a female who had been ill for a length of time, had had the advice of several medical men, but all failed to do her any good, and she was expected to die. This case was undertaken by Dr. C.'s agent, and within four months a cure was effected.

The second case is that of a man who had been ill for several weeks, when his medical attendant examined and sounded him and pronounced him *incurable.* This case was undertaken and a cure effected within three months.

The third case is that of a man who had been suffering for several weeks with inflammation in the knee-joint, which caused his leg and thigh to swell to a great size. His medical attendants had dosed him very freely with mercury; nevertheless the inflammation and pain continued unabated. This case was undertaken, and by the aid of composition-powder, Lobelia, and the vapour-bath, relief was obtained within twelve hours; after which the inflammation rapidly subsided, and in a few weeks the leg was restored to usefulness, which the man believes he would have lost but for the above means.

The fourth case is that of a female who had been suffering with an affection of the *uterus* (womb), for which she had tried various sources, hoping to find relief, but in vain. After much *persuasive reasoning* from one of her medical attendants, she submitted to the humiliating *ordeal* of examination and repeated "cauterising," which were represented as indispensably necessary before a cure could be effected. To this treatment she submitted for a length of time, but finding no benefit from it, she gave it up. She then applied to Dr. C.'s agent, who without *examination* or *caustic* or any other local application but what she could make herself, effected a cure, and for a considerable less sum of money than she had paid for the "*learned quackery*" which had been practised upon her, and from which she received no relief.

The next and last case that I shall name is that of a man who had been ill for a length of time, and although he had had the attendance of three medical men, besides his club doctor, he continued to get worse, and little or no hope was entertained of his recovery, when I was called in. When I entered the room, the man, who was bolstered up in bed, being unable to lie down, fixed his eyes intently upon me with an earnestness only to be equalled by one with the prospect of death, inquired, "do you think you can cure me?" I could not positively answer in the affirmative, but I gave him encouragement and told him I would do my best, and it gives me great pleasure to be able to say that I was successful. This man had a large swelling in his groin which had been *cut* by one of his medical attendants, who said that matter was formed in it and must be let out, if life was to be saved. The doctor put his lancet into it, when, to his and the patient's astonishment, there was *no matter* "*formed!*" This doctor received for "medicine and attendance" five pounds. One of the others received upwards of sixteen pounds! I did not hear what the third charged. My charge was less than three pounds.

The above *facts* will, I am persuaded, receive corroboration from the following statements, the authorities of which will not be questioned:—

1. Horatio Prater, M.R.C.S., says, "the quackery of physic consists in the attempt to make a science where there is none; for where all is chance, or next to it, surely he chances of all to hit on a remedy must

be tolerably equal. Nature ever works in a simple way and will generally recover herself, but certainly not after mineral poisons have been used, however skilfully applied."

2. Dr. Abernethy says, "there has been a great increase of medical men, it is true, of late years; but, upon my word, diseases have increased in proportion."

3. Dr. COFFIN says, "mineral poisons are the principal cause of this increase of disease, whether administered by the faculty or not."

4. Mathew Fletcher, M.R.C.S., says, "it is well understood, too, that there is as much quackery within as without the pale of the profession."

5. Sir A. Carlisle, says, "that physicians are entirely *quacks* in their practice; that it is all guess-work."

6. Dr. Knox says, "it is admitted that medicine has done more harm than good to mankind."

7. Dr. Forbes, speaking of the allopathic treatment, says, "that things have arrived at such a pitch that they cannot be worse; they must mend or end."

8. Dr. Frank says, "thousands are slaughtered in the quiet sick-room; governments look far less after the practice of this dangerous profession than after the lowest trades."

9. The Senior Physician of Bath says, "had I known the efficacy of Dr. COFFIN'S vapour-bath and cayenne, seven years back, when I got a chill, I believe I might have recovered, in three days or weeks, what under the mineral practice took three years, my life being in imminent danger and often given over. Let us hope the open practice of herbal remedies may lead to a better system of education, and so stifle and put Latin prescriptions wholly into a state of non-existence."

10. Dr. Rush says, "our want of success is owing to the following causes: 1st. Our ignorance of disease, of which dissections daily convince us. 2nd. Our ignorance of a suitable remedy, having frequent occasion to blush at our prescriptions." The same author says, "We have assisted in multiplying diseases; we have done more—we have increased their mortality. I will beg pardon of the faculty for acknowledging, in this public manner, the weakness of their profession." Again, he says, "I am pursuing truth and am indifferent where I am led, if she only is my leader." What a vast contrast there is between the noble-minded, truth-seeking Rush and some of the faculty at the present time, who seem to be "indifferent" as to the means they employ, or who is their "leader," so that their object be attained—their interest promoted!"

Some of the faculty, I am aware, are endeavouring to make the public believe that no one is competent to cure the sick, or to treat disease with success, who is not thoroughly acquainted with anatomy. Whether this be true or false will be a subject for the future; but if it were true, how is it that Dr. C.'s agents succeed in curing many of those whom the faculty declare to be *incurable?* Are Dr. C.'s agents better anatomists than the faculty, or are they *now*, as in time past, trying to palm upon the public what they ought to know, if they do not, is untrue? This is the dilemma in which the above evidence places them, and let them choose which "horn" they may, Dr. C.'s agents will not envy them.

From the above statement it is evident that the faculty, by branding others with the stigma of *ignorance* and *quackery*, have violated the precept which says, "let him that is without a fault throw the first stone;" and not only so, but that they have but little to boast of, excepting their ability to gull the public, and then make them pay preciously dear for it. They will do well, I think, first to remove "the beam out of their own eyes," so that they may be able to see more clearly the "mote" that may be in their "brother's."

I am, Sir, yours truly,

"AN AGENT FOR DR. COFFIN."

P.S.—Should any doubt the truth of the statements respecting the cures stated above, they may have the address of each person referred to by writing to the Editor of the "Botanical Journal." The female, in the fourth case, is not, for evident reasons, desirous of having her name in connexion with the particulars of her case made public, but she is quite willing to give them personally to any female who may be suffering with a disease similar to hers.

[We are particularly anxious to direct the attention of our readers to this most important communication from our straightforward and experienced agent It embraces absolute facts without the least exaggeration, and is signally corroborative of all we have advanced during the short time we, in conjunction with Dr. COFFIN, have edited the Journal.]

HEALTH OF T. S. DUNCOMBE, Esq., M.P.

To the Editor of the Botanical Journal.

Sir,—I was glad to see in the *Times* some time ago a contradiction to the notice that had gone the round of the papers, that the "health of T. S. DUNCOMBE, Esq., M.P., was in so precarious a state that there would soon be a vacancy in Finsbury." I called on Dr. COFFIN immediately, who is his attendant physician, and was informed by that gentleman his general health was improving, and have since seen that the honourable gentleman was in his place in Parliament at its opening, and have thought that he who first circulated the falsehood might be glad of his place.

AN ELECTOR OF FINSBURY,
And one who admires truth, as it always appears in the actions of THOMAS S. DUNCOMBE.

After the exercises which the health of the body requires, and which have themselves a natural tendency to actuate and invigorate the mind, the most eligible amusement of a rational being seems to be that interchange of thoughts which is practised in free and easy conversation; where suspicion is banished by experience, and emulation by benevolence; where every man speaks with no other restraint than unwillingness to offend, and hears with no other disposition than desire to be pleased.—*Dr. Johnson.*

NOTICE.

Dr. COFFIN may be consulted gratis, as usual, every Saturday evening, from four to eight o'clock, at the Botanic Establishment, No. 24, Union-street, East, Spitalfields. *Patients not admitted to the waiting-room after eight o'clock.*

Dr. COFFIN may also be consulted at his residence, 24, Montague Place, Russell-square, daily *(Sundays excepted)*, from one to two o'clock (fee one guinea), on any day except Monday, on which day the fee will be five shillings only.

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Sole Agent for Dr. COFFIN, 204½, *Shales-moor, Sheffield,*

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Mr. NADEN is not in the habit of *adulterating* the Remedies he sells, and, therefore, they cannot be sold *so cheap* as those that are.

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All letters should be addressed, "To the Editor of the Botanical Journal, 134, High Holborn."

The Botanical Journal and Medical Reformer is published Fortnightly, at No. 134, High Holborn, London, where all orders must be addressed.

COFFIN'S

BOTANICAL JOURNAL

AND

MEDICAL REFORMER.

"Human experience, which is constantly contradicting theory, is the great test of truth."—Dr. Johnson.

No. 251—Vol. VIII. SATURDAY, DECEMBER 26, 1857. Price 1d.

THE GLEANER, No. 4.

The following sentiments of the learned Noah Webster, Esq., author of the "New Dictionary," are contained in his "Critical Remarks on some parts of Darwin's Theory on Fever." They first appeared in a letter addressed to Edward Miller, M.D. He suggest some doubts of the entire correctness of the Darwinian theory of the "Laws of Organic Life." Concerning what Darwin denominates "the spirit of animation," "the spirit of life or sensorial power," "it seems," says he, "indeed, essential to the perfection of his theory, that he should have determined whether this primary source of the animal functions is an *active* agent, or a *passive* capacity or faculty of the brain, producing effects only in consequence of the impressions or influence of causes external to itself." But the remarks of our author which have particularly arrested our attention, and to which we wish to draw the attention of our readers, are these:—

"From the simplicity observable in all the works of nature which fall under the cognizance of our senses, and from many phenomena of animal life, it seems more probable that the sensorial power is a passive faculty of the brain, acting only in obedience to stimulus, and that the primary stimulus on which animation depends *is the matter of heat.* If the spirit of animation is an active agent, extraneous from the structure of the brain, but resides in it, does it not follow that any interruption of its existence must be death? How is it possible, upon this hypothesis, to account for the *resuscitation* of suspended life in drowned persons, and animals which are torpid during winter? Upon the other hypothesis, that the sensorial power is a passive quality, dependant on the structure of the brain, and therefore acting in obedience to stimulus, or remaining torpid from the defect of it, the phenomena of resuscitation are easily explained. Torpid animals are revived solely by the action of heat, or the matter of heat; and is it not therefore unphilosophical to seek for an additional cause of reanimation? In cases of suffocation, the revival of the person seems to depend exclusively on the same principle—the injection of oxygen into the lungs; for the friction, and application of warm substances, are the only substitutes and auxiliaries to aid in the generation and transmission of heat to all parts of the body; thus aiding the vessels to renew the circulation, which is the natural conveyance of the animating fluid."

Thus far the scientific Webster leans to a cardinal point in our theory and doctrine of animal organic life. If at any other time or place, he may have offered sentiments inconsistent with what he has here advanced, the correctness of these views stand unshaken. We have beforetime endeavoured clearly to illustrate these doctrines, both by lectures and in our meetings, and our ideas are ably sustained by the philosophic pen of our talented author. "From chemical principles it is well known," says Mr. Webster, "that heat or caloric will hold a certain portion of water in solution, and that coming in contact with a much colder substance, the caloric escapes; that is, quits the water by means of its attraction or

affinity with the colder object; and the water is precipitated; or, if the terms here employed are not chemically correct, let the escape of the caloric be ascribed to its tendency to diffuse itself and restore an equlibrium of heat. Thus, when a tumbler of cold water from a well or spring is exposed to the dry atmosphere of a hot summer's day, the sides of it are speedily covered with globules of water. The contiguous invisible aqueous fluid held in solution by caloric is robbed of its sustaining principle, which rushes into the glass of water, and precipitates the warmer fluid with which it was before combined." In the same manner we believe the superabundant (cutaneous) heat of the febrile patient escapes as soon as the natural secretions are removed, and the aqueous matter is deposited on the skin by precipitation.

And this visible fluid on the skin is an evidence of the escape of heat, and must be instantly succeeded by a cooler skin, and a fall of the thermometer when applied to the body. "The reason of a dry skin in the hot fit of fever," says our author, "I suppose to be this—the loss of sensorial power, or morbid action of the subcutaneous vessels induces the cold fit, in which it is agreed there is a suspension of the action, the secreting capillaries. This is followed by an increased action of the heart and arteries by reverse sympathy, or increase of sensorial power, which increased action is communicated to the extreme vessels." But Mr. Webster, though he writes so much like a Medical Botanist, did not seem to understand that these efforts of nature, are in themselves of salutary tendency. He considers them as "at first, morbid, irregular and preternatural." We consider these efforts of nature as being perfectly natural. To suppose an *unnatural* action of nature in putting forth naturally her natural energies, to remove obstructions and obviate disease, is a solecism in language. The irregularities induced in the state of the system that becomes the arena of conflict between disease and the efforts of nature to remove it arises from the strength or degree of obstruction, and the unequal distribution occasioned thereby, of that natural heat that is essential to the healthy state of organic life. As to the reanimation of animals that lie in a torpid state in the cold season, and revive by the genial influence of a vernal sun, we will suppose that at the period of the deluge, a serpent in an uninjured torpid state, had been transmitted to the northern pole, and had remained among the severest boreal frost and snows until now, and that he should be gradually and carefully removed to the temperate zone, notwithstanding the long lapse of ages, would it not resuscitate? Could any man attribute such a revival to any other cause than the stimulus of caloric (or heat) in an active state? Who that reflects a moment can withhold his assent to the conclusions we have arrived at in our theory of disease, and the philosophic opinion of Mr. Webster, that "*torpid animals are revived solely by the access of heat or the matter of heat, and that it is unphilosophical to seek for an additional cause of reanimation?*"

Our readers will see how easy it is to *glean*, from the most distinguished oracles of science, abundant testimony to sustain the principle we have laid down in our "Guide to Health." Who does not see that it is *not* a sacred regard for truth that regulates the conduct of the *learned* opponents of the Medico-Botanic philosophy, but they must be under the strong influence of sinister, selfish, and disingenuous motives?

24, *Montague-place, Russell-square.*

SPREAD OF MEDICAL BOTANY.

(Continued from page 122.)

THE following are the other certificates from France, intended for last Journal, but there not being room we give them as promised.

Certificate No. 2.—(Translation.)

"I the undersigned declare, in 1854 I was seized with cholera. My family called in a doctor who gave his remedies, which were useless. My friends became alarmed, and having heard of a Mr. Gillot, who practised Dr. COFFIN's system, I sent for him, who not only quickly relieved me, but restored me to perfect health in a few days. My friends say my cure is a miracle.

"I beg you will make known to Dr. COFFIN my grateful feelings, and accept

yourself my unmitigated thanks for your disinterested attentions to my case.

"Your most obliged and devoted servant,

"MARIGNY.

"*Rue de Charenton*, 89,
"*October* 27*th*, 1857."

No. 3.

"After being ill for four years, and having the advice of a great many doctors without receiving the least benefit, on the contrary, I was getting daily worse and had given up the doctors and all hope of ever getting better, when I fortunately heard of Mr. Gillot, who, after a few days' treatment of Dr. COFFIN'S remedies, made a complete cure of me. In returning my best thanks for your gratuitous attention, I beg to express my gratitude to the celebrated doctor, for having introduced his system into France.

"MASIM BITANI.

"12, *Rue Daligre, Paris.*"

No. 4.—Copy of a letter to MR. GILLOT.

"Sir,—I was very ill, suffering from an affection of the chest and stomach; I consulted several doctors without receiving the least benefit; and you came and with vapour-baths, herbs, cayenne pepper (which I found pretty hot), ginger, lobelia, and made a cure of me, which I this day testify, and render to you my best thanks.

"LOUIS FORO,

"*Musician, Rue de Charenton*, 95, *corner of*
"*la Rue d'Alagre, Faubourg St. Antoine.*
"*October* 12, 1857, *Paris.*"

MEDICAL BOTANY
VERSUS
ALLOPATHY.

As health is the greatest of all earthly blessings, we are not surprised that the study of the healing art has employed some of the noblest spirits that ever graced the world, and whose philanthropy has been rewarded by the blessings of thousands, the patronage of princes, and, best of all, the conscious pleasure of having done good. Nor are we surprised that carrion should collect a swarm of hungry vultures around the medical standard, whose progress (like the hurricane) is marked with devastation, death, and mourning. The ancients considered the healing art to be more of a supernatural gift, than a science that could be learned at school, and, of course, it was interwoven with superstition and idolatry, and some of their physicians were even deified; but Hippocrates, who is the acknowledged father of medical science, disclaimed all pretence to mysterious incantations, studied the wide book of nature, particularly the animal and vegetable kingdoms, and reduced medicine to a system. Galen and Celsus also laboured to systematise the profession; but its progress was soon arrested by the power of despotism, sitting like an incubus on its lifesprings, and the practitioner was in danger of losing his life if he departed from the rules laid down by his predecessors. But since wars have become less reputable, and the march of civilisation bettered the moral and physical condition of mankind, medical science has again been in progress; and since the days of Paracelsus, the three kingdoms have been partially analysed, and the bowels of the earth ransacked in quest of medicine; and in the present age, in contradistinction to this, we have introduced a system of Medical Botany founded on *experience.*

Our intention is to make a brief and partial comparison of the botanic and mineral remedies, and in order to do so we must compare man to his kindred plant, and inquire what affinity either bears to minerals. We will pass over infancy and begin with both in some degree of maturity, and inform you, both receive their nourishment in a state of solution. The crude mass that is thrown into the stomach, is acted upon by the saliva, and gastric juice of the stomach; in the intestinal canal, by the pancreatic juice and bile; the soluble part of the food, called chyle, is taken up by a set of absorbents called lacteals, from the fluid they convey bearing a resemblance to milk. These lacteals are very small, and divided into a number of branches, before they approach the inner surface of the canal, and many of them fork several times after they pass the middle coat, before they perforate the *villi* or inner coat. These lacteals are abundantly supplied with valves, there being four or five sometimes in one inch. The absorbents by coming together form a trunk, terminating in the thoracic duct

which conveys the chyle into the veins, just before they enter the right cavity of the heart. Plants too receive their food in a state of solution. The fact has been demonstrated by the French chemists, by inserting the roots of mint in the pulverised charcoal of gunpowder, and after the mint had been in a thriving state for three weeks, they would slip the roots and stalks, and examine the pores with the best microscope, and the result was, not a particle of the coal could be found, nor were the pores in the least blackened. The pores in the roots of plants and trees answer to the lacteals in animals; the food of plants, which is animal or vegetable matter in a state of decomposition, dissolved in water, is taken up through the pores along the root, trunk, limbs, twigs, to the leaves, which is the breathing point. This system of vegetable circulation is beautifully illustrated by Mr. Edward Wilkins, the founder of the "Subsoil and Cottage Improvement Company." Mr. Wilkins is the discoverer of a new way or system of conveying nutriment to the roots of the plants by pipes, and therefore produces a direct communication with the pores of the plants. Instead of throwing the manure upon the ground in the usual way to mix with the earth, by which a great portion of it is lost, he prepares his manure in a liquid form, and, as we have stated above, conveys it at once to the roots. In 1854, we were invited by the inventor to see the results of his improvements at Reading. A number of scientific farmers and other gentlemen were there, among whom was J. Mechi, Esq., of Tiptree Hall, who also has made great improvements in agriculture by applying liquid manure; but Mr. Wilkins applies his to the roots instead of the top. Mr. Wilkins shewed us the contrast of three ways of feeding plants: first, the ordinary way; secondly, Mr. Mechi's way; and thirdly, his own: the results were that Mr. Wilkins' mode produced four or five times as much as the old system, and two or three times as much as Mr. Mechi's system, and we came to the conclusion that the old plan of farming was, like the old system of allopathy, always working at the effects and not the cause; that Mr. Mechi's system was a great improvement, like the homœopathists' and hydropathists'; and finally that Mr. Wilkins' discovery was Medical Botany, it being as easy to raise four or five times as much with a great deal less labour; and Medical Botanists, by acting in harmony with the laws of nature, can cure the maladies that flesh is heir to four or five times as quick as the old system, and with one half of the suffering and labour. But we will now leave this seeming digression, and continue our subject direct, by returning to the animal economy.

24, *Montague-place, Russell-square.*

(To be continued.)

ESSAY

ON THE UNCERTAINTY OF THE ALLOPATHIC PRACTICE OF MEDICINE.

"THERE has been much difference of opinion," says Doctor John Abercrombie, "among philosophers in regard to the place which medicine is entitled to hold among the physical sciences; for, while one has maintained that it 'rests upon an eternal basis, and has within it the power of rising to perfection,' it has been distinctly asserted by another, that 'almost the only resource of medicine is the art of conjecturing.' 'The following apologue,' says D'Alembert, 'made by a physician, a man of wit and of philosophy, represents very well the state of that science. Nature, says he, is fighting with disease. A blind man armed with a club, that is the physician, comes to settle the difference. He first tries to make peace; when he cannot accomplish this, he lifts his club and strikes at random; if he strikes the disease, he kills the disease; if he strikes nature, he kills nature.' 'An eminent physician,' says the same writer, 'renouncing a practice which he had exercised for thirty years, said, *I am wearied of guessing.*'"

The uncertainty which is thus a theme both for the philosopher and humorist, is deeply felt by the practical physician in the daily exercise of his art. It becomes therefore an inquiry of the utmost importance, what are the sources of this uncertainty? where that point is in our researches at which its influence begins? and when we arrive at this point, what the means are by which it may be diminished?

The perfect uniformity of all the

phenomena of nature we have seen to be the foundation of the certainty of results of physical science; for, when the order and relations of these phenomena have once been ascertained, we calculate with confidence, that they will continue to observe the same order. Proceeding upon this confidence, in relations which have been observed regarding the heavenly bodies, the astronomer foretels their positions, even at very distant periods. In the same manner, the chemist having ascertained the actions which take place when certain substances are brought into contact, and the new combinations which follow, decides with confidence, that in every instance in which these agents are brought together, the same actions will take place, and will be followed by the same combinations. This confidence, which lies at the foundations of all science, we have seen to be an original or instinctive principle, and not the result of experience; but it is the province of experience to ascertain the particular sequences to which it may be applied; in other words, to distinguish casual relations and sequences from those we are entitled to consider as uniform. The uncertainty of medicine resolves itself chiefly into an apparent want of that uniformity of phenomena, which is so remarkable in other branches of physical science. There are, in particular, two departments of our inquiries, in which we feel continually the effect of this want of uniformity—the characters and the progress of disease, and the action of external agents upon the body.

Since medicine was first cultivated as a science, a leading object of attention has ever been to ascertain the characters or symptoms by which particular internal diseases are indicated, and by which they are distinguished from other diseases which resemble them; but, with the accumulated experience of ages, bearing upon this important subject, our extended observation has only served to convince us how deficient we are in this department, and how often, even in the first step in our progress, we are left to conjecture. A writer of high eminence has even hazarded the assertion, that those persons are most confident in regard to the characters of disease, whose knowledge is most limited, and that extended observation generally leads to doubt. If, then, such uncertainty hangs over our knowledge of the characters of disease, it will not be denied that at least an equal degree of uncertainty attends its progress. We have learned, for example, the various modes by which internal inflammation terminates—as resolution, suppuration, gangrene, adhesion, and effusion; but, in regard to a particular case of inflammation which is before us, how little notion can we form of what will be its progress, or how it will terminate!

An equal or even a more remarkable uncertainty attends all our researches on the second head to which I have referred; namely, the action of external agents upon the body. These engage our attention, as causes of disease and as remedies; and in both these views the action of them is fraught with the highest degree of uncertainty. In regard to the action of external agents as causes of disease, we may take a single example in the effects of cold. Of six individuals which have been exposed to cold in the same degree, and, so far as we can judge, under the same circumstances, one may be seized with inflammation of the lungs, one with diarrhœa, and one with rheumatism, while three may escape without any injury. Not less remarkable is the uncertainty in regard to the action of remedies. One case appears to yield with readiness to the remedies that are employed; on another, which we have every reason to believe to be of the same nature, no effect is produced in arresting its fatal progress; while a third, which threatened to be equally formidable, appears to cease without the operation of any remedy whatever.

With these complicated sources of uncertainty, which meet us at every step in our medical inquiries, it is almost unnecessary to contrast the perfect uniformity of phenomena on a confidence in which we proceed in other departments of science. When we mix together pieces of zinc, sulphuric acid and water, we pronounce with perfect confidence that the water will be decomposed, hydrogen evolved, the metal oxidated, the oxyde dissolved

and sulphate of zinc produced: we pronounce with equal confidence on all the properties, mechanical and chemical, on the new compound which has thus to be formed, and in no case have we the smallest doubt of the exact occurrence of every step in this complicated process. With what feelings we contemplate, in its commencement, a case of dangerous internal disease—its probable progress and termination, and the effect which our remedies are likely to produce in arresting it—those best can tell who have most experienced them.

The certainty of a science, as was formerly stated, depends upon two circumstances, namely, the facility with which we ascertain the true relations and tendencies of things, or trace effects to their true causes, and causes to their effects; and the confidence with which we rely on the actions dependant on these relations continuing to occur in all cases with perfect uniformity. This confidence we easily attain in those sciences in which we have to deal only with inanimate matter. We do so by means of experiments, in which, by placing the substances in various circumstances towards each other, we come to ascertain their true tendencies with perfect certainty, and to separate them from the influence of all associations which are only casual and incidental. Having thus discovered their tendencies or actions, we rely with confidence on those continuing to be uniform; and should we, in any instance, be disappointed in the action we wish to produce, we are able to trace the cause by which the expected result has been prevented, and to obviate the effect of its interference.

In both these respects we find in medicine a degree of uncertainty, which marks a striking distinction between it and the purely physical sciences.

There is great difficulty, in medicine, in tracing effects to their true causes, and causes to their true effects. This difficulty has already been illustrated by the same cause appearing to produce, in different instances, different diseases, or no disease at all; and by a disease seeming to subside under the use of a remedy, which, in a similar case, fails to produce the smallest benefit. When we find our researches thus encumbered with uncertainty, we cannot, as in other sciences, clear them from the influence of casual relations, by means of direct experiment, but are obliged to trust chiefly to the slow course of observation, as the relations happen to be presented to us. Hence, just conclusions are arrived at slowly, and we may be obliged to go on through a long course of observations, before we arrive at any results which we feel to be worthy of confidence. Hence also arises the great temptation to grasp at partial and premature conclusions, from which medical science has suffered so much injury; for, when such conclusions are brought forward with confidence, as long a course of observation may be required for exposing their fallacy as might have been sufficient for ascertaining the truth. In this respect, we see the remarkable difference between medicine and the purely physical sciences; as, in the latter, a single experiment may often be sufficient to overturn the most plausible hypothesis, or to establish one which was proposed only in conjecture.

Even after we have ascertained the true relations and tendencies of things, we are constantly liable to disappointment in medicine, when we endeavour to produce certain results by bringing these tendencies into action. This arises from the silent operation of a new order of causes, by which the phenomena of disease are varied and modified, and by which the action of external agents is aided, modified, or counteracted in a manner which altogether eludes our researches. The causes which thus operate are certain powers in the living body itself, the action of which is entirely beyond our control, and others arising out of the peculiarities of age, sex, temperament of body and mind, and mental emotions, constituting a class of agents of a most powerful kind, of which it is impossible to estimate the combined operation. It is further kept in view that these various agents may be acting together, or in opposition to each other, or under a variety of combinations, and that in reference to our attempts to act upon the body by remedies that may be operating in concert with or in opposition to these attempts. Hence arises a

most extensive source of uncertainty in all our investigations, of which it is impossible to calculate the effect or the extent. Hence also arises that apparent want of uniformity in the phenomena of disease, by which we are so much impeded in our researches; and that want of uniformity in the action of remedies, by which our efforts in medicine are so often disappointed.

Another source of uncertainty in the practical art of medicine is the difficulty which we find in applying to new cases the knowledge we have acquired from observation. This application is made upon the principle either of experience or analogy. We are said to proceed upon experience when the circumstances in the new case are the same as in those cases from which our knowledge was derived. When the circumstances are not the same, but similar, we proceed upon analogy, and our confidence in the result is weaker than when we proceed upon experience. The more numerous the points of resemblance are, the greater is our confidence, because it approaches the more nearly to that which we derive from experience; and the fewer the points of resemblance, our confidence is more and more diminished.

When, in the practice of medicine, we apply to new cases the knowledge acquired from others which we believe to be of the same nature, the difficulties are so great that it is doubtful whether in any case we can properly be said to act upon experience, as we do in other parts of science; for we have not the means of determining with certainty that the condition of the disease, the habit of the patient, and all the circumstances which enter into the character of the affection are in any two cases precisely the same; and if they differ in any one particular, we cannot be said to act from experience, but only from analogy. The difficulties and sources of uncertainty which meet us at every stage of such investigation are, in fact, so great and numerous that those who have had the most extensive opportunities of observation will be the first to acknowledge that our pretended experience must in general sink into analogy, and even our analogy too often into conjecture.

In a science encumbered with so many difficulties and encompassed with so many sources of error, it is obvious what cause we have for proceeding with the utmost caution, and for advancing from step to step with the greatest circumspection. Why one medicine acts upon the stomach, another on the bowels, a third on the kidneys, a fourth on the skin, we have not the smallest conception: we know only the uniformity of the facts.

The scientific physician well knows the difficulty of ascertaining the true relations of those things which are the proper objects of his attention, and the uncertainty which attends all his efforts to produce particular results A person, for example, affected with a disease, recovers under the use of a particular remedy; a second is affected with the same disease, and uses this remedy without any benefit; while a third recovers under a very different remedy, or without any treatment at all; and in those cases in which he has distinctly ascertained true relations, new causes intervene and disappoint his endeavours to produce results by means of these relations. He knows, for example, a disease which would certainly be relieved by full operation of diuretics, and he knows various substances which have unquestionably diuretic virtues; but, in a particular instance, he may fail entirely in relieving the disease by the most assiduous use of these remedies; for the real and true tendencies of these bodies are interrupted by certain other causes in the constitution itself, which entirely elude his observation, and are, in no degree, under his control.

OBSERVATIONS UPON THE ESSAY.

We place this article before our readers, under the influence of its being of the most vital importance to our cause; and if they will give the subject that due consideration it so richly deserves, they will unhesitatingly agree with us. We have therefore made a few comments upon the text, which will, we humbly think, strengthen their judgment upon this momentous subject.

When a scientific man of such high standing as Dr. Abercrombie gives such incontrovertible evidence of the great

uncertainty in the theory and practice of that science in which he is no mean authority, there must be "something rotten in the state of Denmark," and which, according to his arguments, neither he nor the whole host of allopaths can restore to a healthy state. In proof of this we will go through some of the argument, how confirmatory of which is the expression of an eminent physician, upon giving up a practice of thirty years' duration, "*I am weary of guessing!*" If he, thus eminent, was conscientiously obliged to give utterance to that expression, and resign a thirty years' practice, truly the science has been and still is, like December 8th inst., all fog, fog, fog! and if we may judge, even from the time Dr. Abercrombie wrote the article up to the present, the united efforts of all the allopaths, who adhere to the old system so pertinaciously, are not sufficient to dispel the almost tangible fog of their general treatment; nor are all their combined efforts capable of overthrowing such evidence as we can, have and are daily bringing forward, in proof of our superiority in the divine science of speedily curing disease by our Medico-Botanic treatment and system, which they pretend to scorn and look down upon with that contempt which, were they better informed, would be transferred to their own uncertain and poisonous system.

Ignorantly deeming our system beneath their diplomatised dignity, they think it beneath them to notice except to condemn it. Through ignorance and self-sufficiency, they think it unworthy their august attention. They *will* not have faith in it. Why? Because it strikes at the foundation of all their preconceived notions and practical uncertainties. Yet, we are sure and convinced that the epoch will arrive, when they must perforce, if they have any conscience left, be compelled to acknowledge that Dr. COFFIN'S system is right, and is, above all others, the one only that will surmount all opposition, and dispel the fogs of allopathic uncertainty; be acknowledged as the system which has so long been a desideratum in medical science, and shine resplendently out in spite of all opposition past, present and future.

Notwithstanding the myriads who have from the time of Galen, Celsus, &c., made the science of medicine their study, and devoted their lives and all their energies to its practice, many of whom were men of high intellectual attainments, men with strong powers of thought, clear-headed, patient in experiment and investigation, most ardently devoted to their adopted science, yet that eminent man of the present time, Dr. Abercrombie, backed up and supported by all the experience, learning and practical knowledge of these sages of the past, is imperatively compelled to admit that the science of medicine has been and still is involved in great uncertainty—this is fully and beyond all doubt substantiated in the above essay—and he admits also, that "extended observation generally leads to doubt;" consequently it appears that the whole of the learning, knowledge and experience of the past and present, has involved the practice in more doubt and uncertainty. Thus, reasoning from analogy, we may justly infer that the more observation is extended, the more doubt and uncertainty will be the result, which evidently must and will be the case with the allopathic practice, because their foundation is wrong, and they are truly welcome to their own argument.

Upon a careful review of this essay, it behooves all who have the true welfare of themselves, their families and connections, and the good of society at heart, to use every exertion to discover the cause of this great uncertainty, the abrogation of which is fraught with such incalculable blessings to mankind—blessings that only those who have been seriously afflicted can properly appreciate.

It is, therefore, with the utmost gratification that we are enabled, without undue assumption, to direct our readers to the solution of the above difficulties by referring them to (nay, start not, cavillers, allopaths and antagonists, nor meet us with "Just what we thought. Of course 'tis only written to palm their humbug upon the credulous, the unwary and the ignorant." Stop a bit, contemners and scoffers! let common sense have some weight with you, and if you have none of that estimable quality, do not show your want of it by reviling us and our system, and bringing home to

VERVAIN.

yourselves the old adage, "Where ignorance is bliss, 'tis folly to be wise." Our motto is, "Truth is simple, and must prevail." Therefore, to resume) by referring all to that system of Medical Botany first introduced into this realm by that benefactor to his species, Dr. COFFIN, who has introduced and promulgated the only safe, sure, speedy and certain cure for diseases, that all the combined intellectuality and practical experience of the past ages and up to the present time have signally failed to produce. Consult his medical works, become acquainted with his most invaluable system, give it your undivided attention, master the subject, and we pledge ourselves and all our hopes that you will be necessitated to exclaim, "This is indeed CERTAINTY!"

HONESTY.

SUSQUEANNAH ROOT PILLS.

MR. EDITOR.

Sir,—Having been inquired of for a new herbal medicine which is constantly advertised in the form of pills, called the Susqueannah root, which, from the high encomiums passed upon it in the said advertisements, I was led to think a most valuable medicine, and was about to give you an order for a quantity of it, when, to my great surprise, I saw in your notices to correspondents, November 14th, "There is no such root known in America." If there really be no such thing as the Susqueannah root in existence, an article from your pen, exposing the imposition, would, I think, be of considerable service to society.

I am, sir, yours truly,

T. FEREDAY.

In reply to our correspondent, we beg to refer him to the notices in our number of the 14th ult., where he is informed that there is no such root known in America. But the wiseacres constituting the Nottingham Botanic Society have immortalised themselves by the discovery of that which IS NOT, nor ever was. Doubtless there are numerous roots in Susqueannah, but not *the root*.

The remarkable fact that parties being denied the purchase of their so much vaunted *nonentity*, is very striking, as also their reply when application is made for it (viz.), that "they have only enough for themselves, but the applicants may have the pills." Pills made from what? The Susqueannah root. Where is it? Not yet discovered. Spirit-rapping is nothing to this! And as the root is not in the material world, it may possibly be in the spiritual: if so, what etherial medicine it must be! In subtilety it must beat the infinitesimal doses of the homœopathists hollow. The recipients of this spiritual remedy will be so etherialised, that an atom of hydrogen gas will be a ponderous load to their attenuated frames. No doubt the pills will enable them to travel to the uttermost parts of the earth upon a streak of lightning, and be out of the hearing of the thunder which follows its luminosity!

PICTORIAL ILLUSTRATIONS OF MEDICAL BOTANY.

No. 2. VERVAIN—(VERBENA HASTATE.)

DESCRIPTION.—The common Vervain is perennial, has rather broad long leaves next the ground, deeply indented round the edges, and some only deeply cut in alike, of a dark green colour on the upper side, and somewhat gray underneath; the stalk is square, branched into several parts. It grows about two feet high.

FLOWERS.—Blue and gaping, sometimes mixed with white, set on all sides one above another, and sometimes two or three together. Root small and long.

PLACE.—Hedges, waysides and waste ground.

TIME.—Flowers in July, seeds ripen soon after.

QUALITIES.—It is one of the most valuable herbs to be met with in this country.

Its expectorating and emetic qualities rank next to Lobelia Inflata, and the infusion or decoction given as a common drink greatly assists the operation of the above invaluable emetic.

It is also one of the most powerful diaphoretics in nature, and is good for colds, coughs and pain of the head.

Even as an emetic, it supersedes the use of antimony and ipecacuanha.

Vervain is also estimable as an antiscorbutic; will relieve those complaints in children which generally accompany teething; and destroys worms.

It opens obstructions, strengthens and

corrects the stomach, liver and spleen; is also an excellent diuretic.

It strengthens the womb, and given as a tea powerfully assists the pains of labour.

It is excellent in all cases of fever and for the smallpox.

The juice of the leaves mixed with some vinegar wonderfully cleanses the skin, and takes away freckles and other inflammation and deformities of the skin in all parts of the body.

The distilled water of the plant cleanses the eyes, and greatly strengthens the optic nerve.

(The plate in our next.)

ON ODOURS.

In the time of Boerhaave marvellous attributes were assigned to the odoriferous principles; but human opinion, ever vibrating like a pendulum between two extremities, now either underrates or totally overlooks the influence of odours. The numerous experiments made on them by philosophers are forgotten, or remain unapplied; and the organ of smell is considered only as it contributes to the comeliness of the countenance or the communication of pleasant or unpleasant sensations. Nature, however, has not been less elaborate in this than in other portions of the human frame: the internal parts of the organ of smell, greatly convoluted and sinuous, are thus contrived to expose a larger surface to the action of odours; the membranes upon which they act being near the brain, and communicating with it by peculiar and important nerves, &c. On the other hand, we possess abundant evidence of the ready and extensive diffusion of odours; the scent of some spicy and flowery lands is perceived at the distance of thirty or forty miles from the coast. So minutely divided are odoriferous substances, that in some, as in those that arise from assafœtida, each particle has been calculated to be a volume only the hundred and eighty one trillionth part of a cubic inch.

Still, as nature has given to our nervous system the power of appreciating so rare an emanation, and as some odours impart as much disgust as others afford pleasure, perfume cannot be merely an unimportant accessory property of the bodies, bestowed on matter as elegance of form is, to flatter the sense; nor is it only to serve as a guide—for some of the most agreeable odours perniciously intoxicate the senses; and some fetid, as from a sewer, &c., though unwholesome, are less so than the baleful, though scarcely perceptible scent arising from marshy grounds. Not alone does the vegetable world, but metal and stones also emit odour; but that which is most familiar to us is the scent evolved from all animals—that by which the predatory beast discovers his prey—the bloodhound tracks his victim, and the sagacious dog of St. Bernard discovers the traveller buried beneath the snow. The exhalations of men of the several quarters of the globe are also different in smell. The traveller has unpleasant reminiscences of those peculiar to the Negro, the Indian, and the Esquimaux. In youth, the odour exhaled by the human body is positively agreeable, but it is too often succeeded, at a latter period, by one unpleasant and noxious, and demanding the continual remedies derived from our refined habits. This, again, is found to increase suddently into fetidity, by the agitation of the darker passions, as anger and fear; and still more infallibly, from the first decline of health to the last stage of disease. The fetid odours thus arising from mankind, are justly supposed not to play an unimportant part in the production of disease in large and densely populated districts.

QUACKERY EXPOSED.

The following article is extracted from a very interesting communication made to the editors of the "London Gazette of Health." It contains several important suggestions, worthy the strictest attention of every reader who feels an interest in the welfare of mankind. We think it contains matter worthy the special, candid and solemn consideration of that class of men who have been commonly denominated REGULAR PHYSICIANS.

"An enlightened community are becoming weary of the haughty, overbearing pretensions of a monopolising faculty. Their scientific arrogance no longer dazzles the eyes of any but a credulous few whom folly or interest leads along the old beaten track of stale and contemptible superstition. The shackles of ignorance are fall-

ing off, and mental darkness receding rapidly before the resistless light of simple truth. Literary information, in our highly favoured country, is working its way into the dwellings of honest industry.

"A monopolising few will not long be able to riot and fatten on the toils and labours of the oppressed multitude. Impositions, long practised on plebeian ignorance with impunity, are now dragged to the high tribunal of popular investigation; the daily arts of intriguing dissimulation are more easily detected; schools are multiplied; the press is busy; the key of knowledge is being restored to the rightful owners, and the enemies of equal privileges are about being consigned to their condign reward."

Are the brutes by instinct wise, to shun their poison and to choose their food? and shall we conclude that the honest housewife, capable of preparing a comfortable repast to feed the hungry and refresh the weary, must be incapable of preparing a medicine to remove disease, when provided with materials and the needful instructions? Shall it be thought there is so much more of mystery in the rational preparation of medicine than in preparing a meal, that illiterate women can cook our food, and none but collegians can prepare a drink or administer a remedy for disease? If we will but candidly attend to the reasonings of the writer, from whom we have quoted, the folly of that implicit confidence so often reposed in a learned faculty, must be abundantly obvious. Dr. COFFIN has raised the BOTANIC FLAG; society is collecting heart and hand to his triumphant standard. There is no stain of quackish insolence to be found in his system of medicine. It is rendered familiar to common capacities. It is adapted to the necessities of mankind. It has sustained its reputation amidst the flames of persecution. It defies competition. None of the remedies he has prescribed can be safely dispensed with. Whatever auxiliaries may be occasionally admitted in subserviency to time, place and circumstance, there are none of his prescriptions to be rejected—none to be mutilated. They have been tested, have proved themselves to be the best known, and always to have preference when attainable by the honest disciple of Dr. COFFIN, or his honest, faithful adherents—they deal not in unknown nostrums—they practice no impositions. The success of Dr. COFFIN'S practice and system must and will bear down the strong current of quackish opposition, and is now without a parallel in the annals of medical history.

ARTIFICIAL HEAT IN ROOMS.

IF, in a large town, we look at a ray of the sun falling from a closed window on the floor, we shall see that it falls as it were through a gauze of dust; proving the fact of the unfitness of large towns as residences for the consumptive, notwithstanding their more uniform heat. In rooms warmed by stoves this dust is burnt when it passes over the surface of the heated pipes, and produces an atmosphere very insalubrious. This effect may be obviated by covering the exposed part of the stoves with porcelain or other substances.

THE LONDON FOG OF TUESDAY, THE 8TH INST.

No sun, no moon—no morn, no noon; no dawn, no dusk, no proper time of day. No sky, no earthly view; no distance looking blue. No road, no street, no t'other side of the way. No end to any road. No indications where the crescents go. No top to any steeple. No recognitions of familiar people. No courtesies for showing them; no knowing 'em. No travelling at all, no locomotion. No inkling of the way; no notion. No go by land or ocean. No mail, no post; no news from any foreign coast. No park, no ring, no afternooon gentility; no company, no nobility. No warmth, no cheerfulness, no healthful ease; no comfortable feel in any member. No shade, no shine, no butterflies, no bees; no fruits, no flowers, no herbs, no leaves, no birds; no botanising. All fog, fog, fog.

ROUNDNESS AND LENGTH OF THE HUMAN BODY.

Viewing the human body as a complicated whole, as a congeries of organs made up of various combinations of simple tissues, it may be observed, in reference to its external configuration, that it is rounded. This rounded form is principally owing to the large proportion of fluids

which enter into its composition. The roundness of the face, limbs, and entire surface of the child, are in striking contrast to the unequal and irregular surface of the old man, whose humours are comparatively very much smaller in quantity. The length of the human body exceeds its breadth and thickness; the degree of the excess varying at different periods of life, and according to the peculiar constitution of the individual. In the extremities, the bones, muscles, vessels, and nerves, are especially distinguished by their length.

FORMS OF INTEMPERANCE.—There is the intemperance of mirth, and then its victim is a silly buffoon; the intemperance of seriousness, and then he is a gloomy ascetic; the intemperance of ambition, and then he is the laurelled hero of a hundred fights, a mad-cap poet, or a mountebank statesman; the intemperance of love, and then he is a good-for-nothing driveller; the intemperance of anger, and then he is a frothing madman; the intemperance of dress and manners, and then he is a glittering fop; the intemperance of the purse, and then he is a sordid miser; the intemperance of the plate, and then he is a filthy glutton; the intemperance of the bowl, and then he is a reeling drunkard.

NOTICES.

We beg to announce to our friends, that their Annual Subscriptions for the BOTANICAL JOURNAL for the ensuing year is about becoming due, and that they will please to forward them during the first week of January, by Postoffice order, to be made payable to WILLIAM FORD, at the Bloomsbury Postoffice.

Subscriptions for one year, 4*s.* 6*d.*

Dr. COFFIN may be consulted gratis, as usual, every Saturday evening, from four to eight o'clock, at the Botanic Establishment, No. 24, Union-street, East, Spitalfields. *Patients not admitted to the waiting-room after eight o'clock.*

Dr. COFFIN may also be consulted at his residence, 24, Montague Place, Russell-square, daily *(Sundays excepted)*, from one to two o'clock (fee one guinea), on any day except Monday, on which day the fee will be five shillings only.

Advice gratis, every morning, from ten to one o'clock, at the establishment, No. 134, High Holborn, nine doors from New Oxford-street, nearly opposite the London and Westminster Bank, Bloomsbury Branch.

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The best-approved application for cleansing, beautifying, preserving and reviving the hair. It should be used by all persons recovering from fever, or any other illness, as it restores the tone of the cutical secretions, and gives a healthiness to the hair and skin.

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Eight years accredited Agent to Dr. COFFIN, for Ratcliff, Shadwell, Limehouse, Stepney, Poplar, and the surrounding districts, may be consulted daily (gratis), at 108, Ratcliff Highway; and of whom may be had all the Herbs, Roots, Barks, Powders, Pills, and other Medicines used in the practice.

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Mr. CALDWELL may be consulted daily, from 10 to 12 in the morning; from 2 to 4, and from 6 to 8 in the evening (Sundays excepted).

NOTICES TO CORRESPONDENTS.

A SUBSCRIBER TO THE JOURNAL is respectfully informed that our Journal is not intended to be a medium for imparting medical advice in particular cases. We therefore refer our subscriber to Dr. COFFIN'S "Guide to Health," and if more information be required upon the subject, a letter to the doctor, inclosing a fee, will meet with attention.

POST-OFFICE ORDERS and all communications for goods, &c. to be addressed to William B. Ford, 134, High Holborn.

All letters should be addressed, "To the Editor of the Botanical Journal, 134, High Holborn."

The real name and address of the writer of a letter must be given in confidence.

The Botanical Journal and Medical Reformer is published Fortnightly, at No. 134, High Holborn, London, where all orders must be addressed.

COFFIN'S

BOTANICAL JOURNAL

AND

MEDICAL REFORMER.

"Human experience, which is constantly contradicting theory, is the great test of truth."—Dr. Johnson.

No. 252—Vol. VIII. SATURDAY, JANUARY 9, 1858. Price 1d.

TO OUR PATRONS AND SUBSCRIBERS.

It is usual, upon the commencement of a new year, to give a retrospect of the past. We having been but so recently connected with the Journal, precludes a lengthy article upon this point; yet there is a subject or two which does claim a notice. What we have done is before our readers, whom we can assure that no exertion has been spared to render the Journal worthy their perusal and an extended circulation. It is no mean gratification to us, that various letters which we have received, testify that our labours have been appreciated, and have caused an increase in the sale of our periodical. The promises made at the commencement of our joining in conjunction with our esteemed head, Dr. Coffin, have hitherto been most rigidly and punctually kept; and it is scarcely necessary to say that those promises will be fully kept and acted upon through the future. This brings us to the commencement of the new year 1858; and to our patrons friends, and readers, we wish a happy new year and prosperity during its continuance.

As to the future with regard to the Journal, it will be our unwearied object zealously to make it an exponent of the pure and efficacious principles of our Medico-Botanical System, at the same time we shall be keenly upon the alert for all that may transpire during the year, which may either directly or indirectly bear upon and may be beneficial to our good ause, as also to scrutinise, sift and prove the fallacy of all that may be said, or published against it, and also to take cognizance of all events that have any relation to our system. Thus our path for the new year is marked out and clearly defined; and we most urgently solicit the co-operation of our patrons, agents and friends, energetically to exert themselves for the extension of the sale of our Journal. Of this we are sure, that they live our cause at heart; and nothing will exemplify their devotion to that cause, more than by striving by every means in their power to extend its sale; for the more it is circulated the more will our principles, system and practice be disseminated; and thousands yet unborn will have to hail with joy the day that they became acquainted with our system.

We thank our advertising friends for their support, and do hope that their excellent example will be followed by many others, for the more our Journal is circulated, the more advantageous will it be for them.

In conclusion, we proffer our thanks for what has been done by our friends, and take it as the earnest of an energetic and active future.

134, *High Holborn.*

THE GLEANER, No. 5.

It has become customary, among all classes of the community, to communicate useful knowledge, on almost every subject, by lectures. It has been demonstrated in the schools, that those sciences which formerly employed the intellect of the attentive student for many years, while he was poring over

ponderous volumes in quest of knowledge, a competent understanding can now be obtained in a much shorter time by means of lectures. When science was the boast of Greece, and victory in the battlefield was the boast of Rome, their orators were constantly teaching their countrymen the rudiments of science and war, and inspiring their chieftains and philosophers with courage and perseverance. While these orators were heard, those nations flourished, those sciences advanced, and those people were the admiration and instructors of the world; but when the voice of their orators was heard no more, the pen of the philosophers lost its stimuli, the warrior moved sluggishly in the field, and the splendour of Rome and the wisdom of Greece was soon enveloped in the gloom of superstition, lost in the dreary abodes of ignorance and vice, and the melodies of the poets were succeeded by the groans of the oppressed. Happily, however, in our day we have the powerful aid of the PRESS, and in happy England the liberty not only to *speak* at public lectures, but also to *write and publish!* Neither of those, but particularly the press, could be exercised by the ancients to which we have alluded. But though in England, we can boast of more liberty than almost any other country, yet every new invention or discovery has ever met with the most determined opposition; and although *burning* and torturing are out of use, yet all manner of evil is said of the innovator falsely, mocking, scoffing, deriding, &c. Medicine has not escaped; for, when we came forward to produce a reformation in medicines, the members of the established faculty, with their deluded train, commenced the same determined course: they reviled us, attempted to imprison our agents, and treated them with scoffings, and all those who follow in our steps or adopt our system, and assist us in medical reform, have had to bear derision, contempt and sarcasm from the public; but still the medical reform is rapidly advancing, and exhibiting its triumph over the head of all this flood of opposition. Laws have been attempted to be made to fine the *unlawful practitioners!* but they have failed, the eyes of the people are beginning to open on the subject, and, from repeated demonstrations of our system, many are being convinced that its pretensions are no phantom, that its power is not delusion, nor its claims upon their confidence any shadow. The people of this country and age, or the majority of them, are so effectually deluded by the commingling of other sciences with medicine, that we have often heard them say, "How can these Medical Botanists cure the sick who never studied anatomy and chemistry?" But the answer to this has been ably given by one of our agents in a recent number of the Journal. Anatomy and chemistry are useful sciences, but not indispensable to cure the sick in the most of cases. Our readers who have heard us lecture, know that; if they had been, at this this moment *we* should not be writing upon the subject, for the Indian woman that raised us from an early grave *knew nothing of either!* We will not, in any way, speak against learning, yet we wish to be distinctly understood, that a good classical education is one thing, and the secret by which the sick is cured another. It is from a mistaken education, and its influences, that the minds of many of our friends must be disentangled of, before they can fairly approach the plain and simple path that leads to the healing art. Being divested of all this, the beasts know their food and medicine. Thus divested, the ancient Egyptians excelled our modern doctors as far as the day excels the night. The North American Indians, without any of those glittering trappings, excel our wisest doctors in curing the sick, as much as they excel them in literature and science, as we have hinted above in our own case.

The system of medicine taught in the schools is *depletion;* viz., reduce the patient below the range of the disease: thus they have resorted to means within their reach to effect this object. The lancet, the mineral, the vegetable poisons, counterirritation, combined with starvation—all designed to reduce the strength of the patient. And here might we not ask, Would not the disease have reduced the patient fast enough without those

destructive means to help it? or, if the constitution of the patient was only able to support itself under the weight of the disease, must it not fall when it has to bear the disease and those poisonous agents added to it? Suppose you should select a man of the best constitution, and in perfect health, and then commence with him in the following manner: first day, take a pint of blood, give him twelve or fifteen grains of calomel, and forbid him to take anything but bread and water, and but little of that; the second day, take a pint of blood, and give a heavy dose of calomel, and place a blister on the bowels, and forbid him to eat; pursue this course for one week, and we are sure he would be confined to his bed, and ten chances to one he cannot be raised again. We are all aware this is the practice pursued by the allopath in many cases of disease of the present day. Shall we again, as we have often done, ask our readers, if *common sense* will allow them, to believe that a course of treatment that will kill the well can possibly cure the sick? or, if the medicine of itself will destroy the health and break down the constitution which is healthy and strong, can repair and build up the constitution of the weak? The truth is, the whole system of depletion is an error, and may, nay, should be, rejected altogether.

We may be blamed, as we have been heretofore, for writing even this much against the popular opinion of the day; but we ask no pardon for thus giving what we believe to be the truth. No, the health and happiness of the great mass of mankind are at stake, and it is no time to compliment error, which is fraught with danger and death. The subject deserves fearless examination: it challenges investigation, and is worthy in itself to interest every human being who knows himself to be liable to disease.

24, *Montague-place, Russell-square.*

ANOTHER CASE OF ACCIDENTAL POISONING.

To the Editor of the Botanical Journal.

Dear Sir,—An inquest has been held here, in Dudley, upon two females, a mother and daughter, whose names are Cecilia and Catherine Duffy, who were found dead in their bed on the 24th inst.

The following facts were elicited at the inquest: A woman named Helen MacNiel went into a druggist's shop in Dudley for some medicine, which she stated would relieve the cough of the elder female. She asked for twopennyworth of white-wine vinegar, ditto of oil of peppermint, ditto of oil of bitter almonds, ditto of sirup of rhubarb, ditto of tincture of rhubarb, one pennyworth of the oil of aniseed, ditto of sirup of squills, with all of which she was served. At another shop she purchased some sulphur and treacle, and then mixed all the articles together. Both females took a quantity of this heterogeneous mixture on the Wednesday evening, and were found dead in their bed on the Thursday morning. The next day a *post-mortem* examination took place, when a vast amount of congestion of the various organs was discovered, especially in the lungs, liver and brain, which left no doubt in the mind of the medical examiner that both mother and daughter were poisoned by the deadly composition purchased; in accordance with which the jury brought in a verdict of accidental poisoning.

Now, sir, does it not appear very strange that the druggist was not sent for during the inquest, and at least cautioned against selling so readily the oil of bitter almonds, without explaining its dangerous nature to such a customer? Surely it is indeed high time that an effectual stop should be put to such inconsiderate sale of so poisonous an article; and if the legislature will not interfere, let the public at once abandon such shops, and fly to the safe and efficacious remedies used in the Medico-Botanical system of Dr. Coffin. Fly to those before it is too late, and relief will speedily follow. Death has never resulted from our health-dispensing practice, and we boldly challenge the whole array of allopathy to prove the contrary. The glorious light of our Botanical Practice is daily becoming brighter. Hundreds are now fearlessly adopting our methods of cure, where at one time units trembled with doubt and uncertainty to try it, yet, when tried, they have invariably blessed the day they conquered their prejudices; and now, where hundreds have ranked among our patients, thousands and thousands have hailed the

day with unmixed delight on which they became converts to our system, and will join their voices and energies in upholding our efforts in the cause of suffering humanity. I am, dear sir,

Yours faithfully,

JOSEPH GREEN.

QUACK NOSTRUMS AND PATENT MEDICINES.

To the Editor of the Botanical Journal.

SIR,—You will have deplored, as well as every right-thinking man, the present state of society, as regards the gullibility of taking or rather swallowing every new-fangled or high-puffed medicine. There is not a newspaper but what teems with advertisements of nostrums, each one of which purports to cure all "the ills that flesh is heir to." In fact, it is a wonder there is any sickness at all, when every one works a perfect cure, is a panacea, is the elixir of life, the restorer of old age to primeval youth. It is grievous to witness the facility with which many persons suffer themselves to be imposed upon by some pompous advertisement of a pill, sirup, or universal remedy which they purchase at a high rate. Professor Jessot says, "Whoever advertises a remedy to cure all diseases is an impostor, such a remedy being impossible and contradictory to the present state of our medical knowledge;" and I appeal to every sensible man who will reflect for a moment on the different phases and symptoms of disease, whether this is not the case. Did people but know the ingredients of the nostrums they purchase, they would lose all confidence in them. *Secrecy* in the minds of the ignorant and suffering, stamps a great value on every medical preparation. Cheats and impostors know this, and thus take the advantage to palm upon the unwary their spurious medicine and nauseous trash. It is true that we must make some allowance for the uncertainty of allopathic treatment to cure, and if the patient has escaped their treatment, it is too frequently with a debilitated and poisoned constitution, and thus with the hope of finding relief, they fly to quack medicines and patent nostrums, mostly compounded with arsenic, mercury, &c. Nearly all the worm medicines contain mercury, yet nearly all are professed to be vegetable. The sirups and panaceas denominated vegetable, contain corrosive sublimate (mercury in its deadliest form).

As a specimen, not only of the arrogance of the advertising quacks, but also of their pompous, high-flown effusions, to puff of their never-failing nostrums, in order to entrap the simple and weak-minded, I give you a specimen of one of their advertisements, as it appeared in the newspaper: "Dr. F—— having been legally bred to the medical profession, confines his attention to diseases of long standing. His experience is very great, his success astonishing. Strangers may find some difficulty in making a choice. Dr. F—— looks down with conscious pride upon all competition his real respectability, skill, and integrity, challenge the severest scrutiny." This precious bit is from one of the many who fatten upon disease, and dupe the poorest of the poor.

The Welsh medicamentum, so highly recommended that those who take it will never again require the healing art, is composed of nothing else than a compound tincture of aloes, mixed with a few aromatics to disguise its taste, and being more proper for a horse than for a human being. Certain cough-drops, which have gained much celebrity, are wholly dependant upon the opium they contain. A certain balsam of liverwort, by constant puffing and forged certificates, has gained great notoriety; yet the preparation is totally worthless, nay, highly injurious, being compounded with foxglove and opium; and the maker of it, after having amassed a fortune, died of *consumption*, the very complaint for which his nostrum was so highly recommended to cure.

Most of the advertised compounds are base impositions, and their vendors lost to all sense of conscience, integrity and honour—shameless and base in the extreme. Why do not the press cry down such a state of things? This is easily answered: interest. The advertisements are a main help to the paper. Why do not Government look to it? and we, the Medical Botanists, will assist them. But will they do it? No, no. Will Mr. Headlam and his colleagues, who appear to be so anxious about medical quackery,

bring in a bill to put down this, the greatest crying evil of the day? Here, if they be true to their professions, is a wide field of labour for their exertions which would stamp them as benefactors to society; but they will not do it, because their interest is bound up with medical monopoly; or, in the language of Dr. Dixon, "They must support that which has so long supported them."

I will now bring to your notice another mode of quackery, which appears to take well for at least a time. Parties come into our large towns, take one of the largest shops for a stated time, and advertise themselves as (for instance), the great American traveller; engages men to talk, which they call lecturing, professing to cure the poor for nothing—treats, of course, entirely upon the botanical principle—draws large audiences; but for no other purpose than to gull them and impose upon their credulity, and getting their money by promising to cure their complaint for so much cash. One particular case came under my notice (viz.): a poor man afflicted with a chronic complaint, applied to one of those impostors, who promised to cure him for ten shillings and six pence, to procure which, the poor fellow sold some of his goods, and lived for two days on two pounds of bread; they gave him a bottle of medicine and a box of pills; but when the poor fellow went a second time, the shop was closed, the great traveller had decamped to some other town to rob and plunder.

There is still another class of quacks who send bills to each house with a long list of diseases, which they profess to cure. A man then follows and inquires if all are well in the house; if, by chance, he sees one indisposed or ill, he manœuvres a little, and by tact obtains information of the nature of their complaint; he then tells them the symptoms, and the poor deluded ones thinks he understands their illness, and when he perceives he has them in his meshes, he takes out an ounce bottle of mixture, or rather coloured water, and says, "Here is a medicine that is a certain cure, which has cost me a vast amount of labour and expense to bring to perfection. I never charge less than fifteen shillings, but as you appear to be poor, but honest and industrious, you shall have it for ten shillings, and you must take ten drops in a strong decoction of gentian-root, valerian, and Peruvian bark tea, three times a day." The poor people will, if they have not sufficient money, borrow to make it up. The unprincipled fellow pockets the money, and his dupes find out, when too late, that they have been victimised.

Could those fellows who adopt the above plan accomplish half of what they profess, there might be some excuse for their proceedings, for there is always plenty of disease to cure. Again, I am aware that invalids often fancy that the nostrums did them good: so did a woman who was in the habit of sending to a doctor for pills during a long period, stating that she could not live without them. One day, feeling ill, she requested her husband to go for some; but on his way, he concluded to substitute some paste, made stiff and rolled up into pills: some of these she took, and pronounced herself better.

We must not expect our Legislature to put down quack medicines and patent nostrums. The stamp-duty is too good a thing to be easily set aside; but we can all do our part in this great cause by instructing the people how to cure themselves by that system of Medical Botany introduced by Dr. COFFIN, which is simple but efficacious, and in referring them to his inestimable "Guide to Health," and his other publications; besides the Botanical Journal, which is one great medium of instructing the people, showing them the superiority of the botanic practice, and exposing the errors of the old-school systems, convincing them of the nature and effects of those compounds puffed into circulation for gain: they must be warned of the amount of injury that is inflicted upon the diseased community, that the evil may be overcome and destroyed, and the botanic practice placed before them in all its bearings; and if, after all that can be done to open their eyes, they will still continue to take the patent and quack nostrums, and will be deceived, all we can say is, "Let them."

Yours truly,

JOSEPH NADEN.

204½, *Shales-moor*, *Sheffield.*

SUCCESSFUL PRACTICE OF MEDICAL BOTANY.

To the Editor of the Botanical Journal.

SIR,—I have been much pleased of late, by seeing in the Journal a register of cases cured by Medical Botany. I will not now venture to offer you such a list as those who have been in practice for a greater number of years than I have known Medical Botany; but if you think what I now send you worthy a place in your Journal, I will, on some future occasion, send you more. I have long felt it a debt I owe to Dr. COFFIN, and the public, to make my own case known, and will, therefore, give it first. During the winter 1851-2, I was the subject of several severe colds, and about March, 1852, finding myself troubled with a bad cough, I took an elixir composed of opium, honey, vitriol, &c., and continued it until my cough disappeared, which I expect was more the effect of the warm weather than the medicine. During the summer months, I was well, and free from cough; but with the autumn it returned with redoubled violence, and continued through the winter. I became alarmed, and went to Dr. H——, then doctor to a society, of which I am a member. About January, 1853, the secretary of the society inquired of him regarding my case, and he told him that I was suffering from disease of the chest, that I was very likely to become a troublesome member, and not likely to recover. I did not like this; he having always told me I should soon get well. I therefore made up my mind to try some other treatment, and proceeding at once to Birmingham, placed myself under Dr. Fearon, an homœopath. I remained under him about three months, and then, for convenience, commenced with Dr. Knowles, of Wolverhampton, also an homœopath, whom I remained under about four months. I had not altered much under the homœopathic treatment, still I did not lose confidence; but in August, I was taken very ill with inflammation in my left side (pleurisy), and for a month after this I did not get more than one or two hours' sleep in the twenty-four. My mother sat up with me nightly for about a week, expecting I should not live; my cough was most distressing, and expectoration very great. I had become by this time so weak, that when I began to get about, I could not walk many yards without feeling great fatigue. I wrote at this time (late in August), to Dr. Walter Johnson, then Editor of the "Journal of Health," making inquiries about hydropathic works calculated to enable me to apply the treatment myself, expecting him to answer me in the Journal, instead of which he kindly wrote by return of post, advising me not to undertake my own case, and informing me of a self-supporting hospital in connexion with the Hydropathic Institution, near Otley, in Yorkshire. After writing to Dr. McLeod for particulars, I started on the 7th of September, and saw the doctor next morning. He considered my case curable, and ordered treatment. I got a change for the better in a few days, but soon got worse again. An ulcer formed on my left lung, and discharged a quantity of purulent matter; after which I improved rapidly for two months, and I think I might have got well if I could have staid there, but could not for want of means. I next placed myself in the Homœopathic Hospital, Manchester: this is a partly self-supporting institution. I staid there six weeks, but got worse, and was given up by the doctors, four in number, as incurable. I now returned to Stafford in bad spirits, and made a trial to work, but could not stand it. I called in Mr. L., a surgeon, who during my absence from home had been elected to attend to the above-named society: he was sorry he could not pretend to cure me, but I might try cod-liver oil; if that would not do me good, nothing would. And now, as a last resource, by the persuasion of a few friends, I started to Mr. Thomas Garlick, Wolverhampton, to give a trial to Medical Botany: this was in January, 1854. He gave me medicine, and told me he thought I was curable. I seemed to improve a little, but soon relapsed again: for a few days I could neither take food nor medicine, I was so sick. Mr. Garlick ordered a lobelia emetic. I took it, but did not find much relief until another ulcer, which

had been forming on my lung, discharged nearly half a pint of matter, so offensive to the smell that the people in the house were compelled to go out, my mother excepted. From this time I began to improve fast. I took one, sometimes two, emetics of lobelia every week, for two or three months, besides taking lobelia, in both pills and mixture, from four to six times per day; still, with all this so-called poison, I continued to get stronger. I had now taken charge of my own case, with the assistance of Dr. COFFIN's "Guide to Health;" but Dr. C. coming down to Birmingham to give a course of lectures, I consulted him twice; I think this was in March. He encouraged me to perseverance, which I am thankful to say was crowned with success. Since then I have made Medical Botany my chief study. I have spent fifteen months with Mr. Thomas Garlick, of Wolverhampton, for the purpose of getting a practical knowledge of the system: have graduated a member of the Medico-Botanic Society, founded by Dr. COFFIN; and have been enabled, by the use of pure botanical remedies, to restore many to health, after the "by law-established doctors" have failed. One case I will now give, that of Mrs. Grimes, No. 58, Foregate-street. This was a very bad case of jaundice—had been treated by the doctors of the Staffordshire General Infirmary for four months without relief, and after trying a host of remedies for more than thirty months, was so ill that she despaired of ever getting well. She suffered much pain, and also other symptoms of obstructed circulation, and general constitutional derangement. This patient took medicine for six weeks, and is now quite well. Lobelia took a very active part in this case.—Hoping you will find room for this in your next Journal, I remain, sir, yours respectfully, JAMES DAY.

December 21, 1857.

Dr. Coffin's Botanic Dispensary, Grey Friars, Stafford.

AN ESSAY ON MEDICAL PRACTICE, ANCIENT AND MODERN.

NOTWITHSTANDING the numerous host of witnesses, who are daily increasing, the great extent of their testimony, which is widely extending, and supporting Dr. COFFIN's system of Medical Botany, and justifying his claims to universal patronage in his admirably practical discoveries in medicine, yet there appears to be no degree of testimony sufficient to satisfy the mind or silence the clamour of those individuals who find, or think they find, an interest in making opposition.

Among the most formidable class of opponents Dr. COFFIN has had to encounter have been those medical soothsayers, scribblers, lecturers, and law-protected regulars in the ranks of the faculty who depend on their craft for their daily bread, and perceive that it is in imminent danger. They are not so blinded as not to perceive, that wherever the system of Dr. COFFIN has been fully proclaimed and fairly tested, it has been cordially received, and has successfully sustained its reputation. There the legalised faculty, though protected by legislative patronage, and every man on the alert, with his sword upon his thigh, has rapidly declined. They no longer engross the public confidence: they have become objects of fear and dread. The homage and adulation of former days are passing away to oblivion, where all ought to be consigned who arrogantly seek their own profit, in the absence of all candour, integrity, and good faith. It is time that they should be dismantled of those specious pretensions that bewilder the undiscerning and lead multitudes in the paths of mistaken zeal in the pursuit of shadows.

Truth is simple. The most useful truths are the easiest to obtain. It is the prerogative of truth to detect and expose error and falsehood on every hand. The impostor shrinks from its searching influence and trembles at its peerless tribunal. The impostor studies concealment, abounds in endless egotism, has recourse to many artful and evasive turns, for he has need of such means of security. The medical impostor veils himself in mystery, blows the trumpet of self-admiration, and boasts of his achievements. Ambitious of undeserved applause, he will drive furiously. If he can but evade the lash of the law, or take protection beneath the shadow of its wing, no moral consideration can retard his extravagant career.

Impostors of a higher grade assume peculiar dignity to themselves, ostensibly ranking, as they often do, with men of eminence in the profession. They have a smattering of what might be termed medical education. They assert that Lobelia Inflata will kill any man, but that mercury, antimony, opium and hyosciamus are innocent, harmless and excellent medicines when administered by their hands.

Such as these delight to veil themselves in mysterious, unintelligible language. In this way they often abuse the good sense and insult the feelings of a patient, whose interest it is to understand minutely every word. Can such puny philosophers imagine that they understand the connexion between causes and effects any better than others, merely because they can make out a Latin prescription? or that a medicine will produce a more salutary operation by giving it a technical name, known only to the profession?

Among the more enlightened and intelligent of the faculty, it is to be lamented that so much of the garb of quackery should be worn. Behold the doctor at the bedside of the sick. He prescribes a new mixture of old remedies, or an old remedy with a new name. Why all this management? Why this pompous parade and pseudo-wise concealment? In many cases the reason is obvious: it is really wisdom to conceal the truth or otherwise abandon the patient; because, if the patient knew the medicine, he would not touch it. The direful consequences attendant on his mineral poisons have been too often demonstrated (especially by us Medical Botanists) for any reasonable being with open eyes to venture on such desperate means.

Reader, pause and consider. Let these deleterious articles be taken from the druggists' shops, and your regular practitioners, as they are commonly denominated, the class of men with which a doctor-ridden community is saddled, would suddenly abandon their practice, and relinquish this their learned profession: not a man would stand to his post. Take away the mineral and vegetable poisons, that contain the principles of death inherent in their nature, and in what prescription would they repose any confidence? Remove these from the vocabulary of medicine, and what would be the result? Do we not hear them cry out, "Ye have taken away my gods, and what have I left?"

The good physician must always be intent on the welfare of his patient, and cannot, conscientiously, urge upon his patient a remedy he would be unwilling to swallow himself, in case of an exchange of circumstances. The practitioner of Dr. COFFIN'S system is not afraid of his own medicine: we may rest assured, he is as intent on the welfare of his patient as the graduated quack, or even the most scientific physician. He is open, candid, and explicit; he has not a thousand remedies; his medicines are few, innocent, effectual, in supporting the powers of life against the ravages of disease. The number of his medicines, however, is nearly equal to the number of potent remedies (viz.); the articles of reliance in common use by the regular faculty. The names of his remedies are all in plain English, easy to be understood. The articles are indigenous, the production of our own country; at least principally so. They will create sickness, purge, sweat, and break down obstructions as certainly, prescribed in our maternal tongue, as well as though the whole force of the most abstruse technicalities of a medical university were put in requisition for the occasion. I prefer a living language for a life-exciting medicine. The dead languages are best suited to medicines that naturally destroy the powers of life. To administer a puke, in a plain English prescription, will confirm its operation as effectually as could be done by the magic influence of all the dead languages combined, making, however, suitable allowances for the faith, conceit, prejudice, and superstition of the patient.

HONESTY.

EXTRACT COMMENDATORY OF THE JOURNAL.

TO A. I. COFFIN, ESQ., M.D.

RESPECTED SIR,—Though reluctant to trespass further on your valuable time, I cannot help congratulating you on the spread of your beautiful system, and on the great improvement of late in

the Journal, which I had been sorry to see long in a depressed state of vitality, and in great part made up of articles foreign to the noble object which it steadily pursued, when under your personal superintendence. The reissue of the engravings of the herbs will be welcomed by many, and I trust you will think fit frequently to give such useful illustrations, which I hear have already proved very attractive. Hoping, dear sir, you are well, and may long be spared to pursue your labours,

Believe me,

Your obliged servant,

G. P. R.

Glasgow, December 21st.

THE USE OF PURE WATER.

Two centuries ago, London was a very large city, although nothing like so large as it is at present. Four hundred and fifty thousand people were then living in it, in tall houses, which were packed very closely together, so that they formed narrow streets.

But no pains were taken at this time to carry away the dirt and waste matter, that necessarily gathered where there was so vast a crowd of living beings. Some little of it was washed down into the river Thames, when it rained; but by far the greater part of it collected in heaps, and lay in all sorts of holes and corners, decaying and putrefying, and filling the air all round with poison-vapours, which no one could see, but which every one was forced to take into his mouth when he opened it. London was then one of the most crowded and dirty, as well as one of the largest cities in the world.

In the year 1665—that is, nearly two hundred years ago—a dreadful disease broke out all at once in this crowded and dirty city. People who caught this disease sometimes died in a moment, as if they had been killed by a blow; and hence it was called "the plague," a word taken from an old Greek term, that signified "to strike."

The plague struck London so awfully in this sad year, that in a short summer a hundred thousand people, out of its four hundred and fifty thousand inhabitants, died. At one period, a thousand perished every twenty-four hours! A single small parish buried six hundred dead in a week. On the worst night of the pestilence, four thousand human creatures who were living when the sun set, had ceased to breathe before it rose again!

All kinds of business stopped in the city. Most of the inhabitants fled into the open country; the rest shut themselves up in their houses. Carts used to go round every night to gather the dead bodies, and to take them to large holes dug in the ground to receive them. At last the dead bodies were so numerous that the men who went round for them with the carts, ceased to be able to keep an accouut of their numbers. It is known, however, that in two short months, fifty thousand bodies were buried in this miserable way.

Two hundred thousand people left their houses, and lived in the fields and forests. When these fugitives returned in the autumn, after the pestilence had ceased, and went to look for some of the friends whom they had left behind them, whole families proved to have been so completely swept away, that not a single person bearing their names could be found.

When the hundred thousand people died in London, in the year 1665, men fancied that God had visited them with death as a punishment. Several individuals ran about the streets nearly naked, crying with a loud voice, "yet forty days and London shall be destroyed." One poor creature was seen rushing about everywhere, and calling out continually, with a voice and face full of horror, "Oh! the great and dreadful God."

These miserable beings, however, were wrong. They were crazy with fear, and uttered words of ignorance and falsehood, and not the words of truth. London was not destroyed in forty days, and the Great God was merciful, and not dreadful. He had sent them—not the plague, but the fresh air and the pure water, which would have prevented the pestilence, if these blessings had been allowed to do their cleansing and purifying work.

London has now more than five times as many people dwelling in its streets as it had then. There are now in it no less than twenty-one square miles of houses, packed as closely together as they can

stand; and in these houses two millions and a half of human creatures live.

But now, hundreds of miles of channels are cut out under the streets and houses, to carry off waste matters; and millions of gallons of pure water are brought into the houses every day, and poured down these channels. Nearly a tenth part as much pure water as flows down the Thames is now running through the houses of London continuously, to wash away offensive and decaying substances, along pipes laid down for the purpose. More than *twenty millions of gallons* of pure water are made to stream through the London houses, every day, by machinery provided for the purpose, besides probably half as much more which is drawn from the pumps and wells. The consequence of all this is, that London, with its greatly increased crowd of living beings, and with its much larger production of waste and dirt, is now never visited by any disease so dreadful as that old plague.

But since the plague never returns now to London, you think, perhaps, it is because the fearful disease has at length worn itself out, and not because London is better kept than it used to be. But how, then, will you account for this fact? There are cities at the present time, in Egypt and in Turkey, which are just in the same filthy and miserable state that London was in, two centuries ago; and in these the plague still breaks out almost every year, sweeping away hundreds of human beings at each visitation.

As recently as the year 1852, a severe disease broke out in a small town close to the outskirts of London, where sixteen thousand people lived; in a very short time, two thousand out of the sixteen thousand became ill, and seventy persons died. A very clever doctor was sent down from London to find out what was the cause of this illness, and he soon discovered that the channels, which ought to have carried away the waste and decaying matters from this town, were choked up, and could not perform their office.

When water was poured down into these channels, it squeezed up out of them quantities of light and invisible poison-vapour, which had been formed in the channels from the decaying matter. This invisible poison, being forced out before the water, bubbled up back into the houses, and poisoned the air their inhabitants had to breathe. Even when the fresh rain that fell on the house-tops and in the streets, ran down into the channels, it too made the poison-vapour bubble back into the houses.

In a house, where there was a school, in this little town, a tall pipe was carried up from the channel for waste water, higher than the roof, and one of the teachers climbed up and put his face over the end of the pipe, to find if any thing came out from it. He was at once seized with sickness, as if he had been blown upon by the breath of the plague. But in this town, the clever and wise doctor did not let the people run about the streets, crazy with fear, and attributing the calamity to the anger of God. He showed them what was wrong, and set them to make wrong, right. He had the choked-up channels cleared out and put in order, and plenty of water poured down them to wash away the poisonous filth, and so only one person in every two hundred and thirty died, instead of one in every five, as was the case in London at the time of the plague.

The hundred thousand persons who were destroyed in the year of the great plague, in London, were really as much *killed by dirt and ignorance*, as they were by the pestilence.

By severe lessons of this kind, men have been taught that when great crowds of living creatures dwell close together in cities and towns, pipes or channels must be made under ground to carry away dirt and waste substances; and that those substances must be constantly driven out through such channels as fast as they are put into them, otherwise more poison-vapours will be poured forth in a narrow space than the fresh air will be able to master and destroy at once. The channels made under houses to receive and carry away dirt and waste, are called "sewers," and "drains."

Now you, my friend, who live in a town, have a house where sewers and drains of some sort or other have been provided, to carry away decaying, poisonous filth; accordingly you throw all waste

matters into these drains, and think that is all you have to do, and that you have got rid of them as it was meant you should, and have put them quite beyond the power to do you harm. In this, however, you may be altogether in the wrong; too often you have done nothing of the kind.

Waste matter has no legs or wheels; it can neither run nor roll away. It will fall down, so far as it can get; but it will not move onwards, unless driven, or forced to do so. You know very well that if you want a spadeful of earth or cinders moved, you put a spade or shovel under it, and lift it up, and carry it away.

The waste matters that are put into the sewers and drains must also be carried away through them; otherwise having fallen into the drainpipes, they will go as far down them as they can, and then will lie there choking up the passage, and preventing everything that is added from passing further that way. But you say, How are you to make them pass on if they choose to lie there so obstinately, after you have thrown them in? That is the point to which I want to bring you. There is really no difficulty in the case, if you only see the matter in the right light. Means have been provided, all ready to your hand, if you will but use them as it was meant you should, whereby you may drive away together the danger and the dirt.

The winds which blow over the face of the earth, to keep the air fresh, have had a very powerful helpmate appointed, to aid them in their cleansing labours. The rain that is poured down from the sky is the helpmate of the winds in their purefying work.

When rain falls on the ground, it runs to the lowest places it can find, and makes little rills and rivulets, and so at last flows on into the wide basin of the sea. But as it does this, it takes with it all the dirt and decaying matters that lie in its way.

When it rains, God, in his mercy and love, is refreshing and cleansing the air and the ground. We most of us know this very well, but rarely indeed do we think how constant and wonderful the care is that He bestows, while performing this kind service in our behalf.

The quantity of cleansing rain that is poured down upon the earth from the clouds, in the course of a single year, is so great, that we can hardly imagine how enormous it would seem if collected together. There are some facts, however, which will help to shew how surprisingly vast this quantity is.

All the rivers of the earth are fed by the rain. Rivers, indeed, are nothing but rain which has fallen upon high grounds, and which is hastening along in the channels and grooves which it has hollowed out, towards the great basin of the sea.

The largest river in England runs through London, and is called the Thames. This river is two hundred and twenty miles long, and drains away the rain from six thousand square miles of land. Now, if the river Thames emptied itself into a cistern, instead of into the sea, that cistern would need to have nearly six acres for its bottom, and to be as high as it was broad and long, only to be able to hold as much water as it would receive in twenty-four hours. More than two hundred solid acres of water roll down the Thames, into the sea, every day. Five solid miles of water pour through its channel in a year.

But this great Thames is, after all, nothing more than a little brook, when measured by the side of other rivers. There are one hundred rivers upon the earth larger than the Thames, and some of these very much larger indeed.

There is one river in America that is two thousand miles long, and that pours out into the sea every twenty-four hours, more water than a cistern half a mile square and half a mile deep could hold.

Another still more mighty American river is nearly five thousand miles long, and pours out, into the sea, as much water in a single day as the Thames does in a year. This grand old stream was known to the early inhabitants of the land, under the name of the "Father of Rivers."

(To be continued.)

Poisonous Blue.—An improved azure blue for domestic purposes has very lately been invented. The inventors mix oxalic acid with Prussian or Chinese blue in about equal quantities. To every four parts of this mixture they add about one part of water, which they heat or boil for a short time, and, when cold, dry it, and then pulverise it ready for sale, as a powder, or dilute it with water, and sell it in a liquid state.

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No. 2.—Enlarged view of the stomach, liver, gall-bladder, pancreas, spleen, œsophagus, mesenteric gland, with lacteals, thoracic duct, subclavian vein, showing how the nutriment of the food is converted into blood, and mixed with the circulation.

No. 3.—Circulation of the blood, containing the heart, lungs, main arteries, veins and kidneys.

No. 4.—Whole-length figure, portraying the different regions of the body, with the main arteries, showing the various places where pressure ought to be applied in cases of accident requiring the blood to be stopped.

No. 5.—The trunk, bringing into one view the more important viscera.

A single drawing of this set 0 8 0
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A whole-length figure, life-size, showing the lungs, heart, liver, stomach and viscera, with the leading arteries and where pressure ought to be applied in cases of accident. 1 2 6
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In conjunction with our anatomical drawings, we intend to produce a splendid series of our medical herbs, upon the same-sized paper, as companions to the above, carefully drawn and beautifully coloured from nature, and shall be happy to furnish them for the same prices. In fact they will not only be a desideratum to Medical Botanists, but absolutely ornamental as pictures.

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Dr. COFFIN may also be consulted at his residence, 24, Montague Place, Russell-square, daily *(Sundays excepted)*, from one to two o'clock (fee one guinea), on any day except Monday, on which day the fee will be five shillings only.

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"Human experience, which is constantly contradicting theory, is the great test of truth."—Dr. Johnson.

No. 253—Vol. VIII. SATURDAY, JANUARY 23, 1858. Price 1d.

MEDICAL BOTANY
VERSUS
ALLOPATHY.

(Continued from page 148.)

We left the chyle just communicated to the blood, ready to enter the right cavity of the heart; but before it enters the ventricle, it passes a cavity called the auricle. Between the auricle and ventricle, there is a valve to prevent the blood from returning. When the heart contracts to drive the blood into the pulmonary vein, there are also two halfmoon valves, to prevent a return of the blood when the ventricle expands to receive blood from the auricle. Thus the venous blood charged with chyle is propelled to the lungs, where a chemical process takes place: oxygen is absorbed, and carbonic acid gas is thrown off. Here we may observe, that carbon is thrown off, because the animal structure has no use for it; but oxygen is of vital importance. And here we have a clew to the generation of animal heat.

Our friends will remember, that we have, from time to time, in our lectures in all parts of the country, given explanations and illustrations of the above facts and theories. However, the great Lavoisier supposed that oxygen itself was animal heat, and caused an artificial breathing in a dead animal; but we will give an illustration that will make the generation of animal heat as plain as two and two make four. Chemistry has demonstrated the fact, that when a liquid or fluid goes into a solid form, heat is produced. If, therefore, you take a piece of well burned limestone, large enough to absorb a gill of water, though the stone be too cold to be pleasant to the hand, yet, as soon as it absorbs the water, the temperature rises to several hundred degrees, and becomes so intolerably hot as to *burn* the hand, that a few minutes before found it even uncomfortably cold.

Now in this process, the water is changed from a liquid to a solid form, being completely incorporated with stone, and heat is effected. This doctrine will hold good if applied to the animal economy. Oxygen is absorbed in a gaseous form in the lungs, and incorporated with the chyle, which is a denser substance than the gas, and the result is, *warm arterial blood* of a high crimson is produced. This newly formed substance has its temperature raised again by forming all the solids and supplying the waste of nature; and hence the high flow of youthful spirits while *growing* and *fattening*, and the buoyancy of mature years while the power of perspiration is properly regulated to carry the perspirable matter, and permit the solids to be renewed; for we must maintain the theory, that the whole animal system wastes away in a given time, just in proportion to the quantity of chyle absorbed, combined with the oxygen and deposited in the system. In this state of things breathing is as natural as for water to flow downwards; and this is the very philosophy on which our system of Medical Botany rests. But to return again to the vegetable kingdom, and commence at the breathing point, which, as we have before said, is the leaves, where

the gases are inhaled and exhaled. The under or rough side of the leaf inhales and the other exhales. In this process oxygen is thrown off, and carbonic gas is absorbed. Animals require oxygen to form fat and animal fibre; but plants require carbon to form woody fibre, for wood when coaled in the pit leaves nothing but pure carbon. Here again we have another clew to the generation of heat. The carbon goes from a gaseous form to a denser state, when it unites with the food of plants in a state of solution. Being thus increased in temperature, it expands the bark and forms a new cortical layer of wood, which at first is a soft mucilage, when the bark may be easily peeled; but as it hardens, the bark adheres again firmly to the tree, and in this last process more vegetable heat is produced; and Sir Humphrey Davy says, "that even in winter the temperature of trees is several degrees higher than the surrounding atmosphere." Thus we see a striking likeness between the animal and vegetable kingdoms; they can be food for each other in turn, and when they live together in harmony, they prepare the gases for each other's reception; the one taking up and the other throwing out. We have no doubt that, whether this theory is understood or not by the faculty, it is one of the principal reasons that patients who live in London and other large towns, where a too large amount of carbon is constantly filling the atmosphere, are recommended to go into the country, as also a great reason why they recover so fast. But does metal have any affinity to either the animal or vegetable kingdom? It has no circulating system, receives no food, draws no breath, is not increased by generation or diminished by death, it is one of the earths; yet the medical faculty have pressed it into their ranks. Of the mineral kingdom we shall confine our remarks principally to mercury. This article is used in various preparations, but especially in calomel, which is an union of quicksilver and muriatic acid. It is true that in the process the corrosive sublimate, which is the most poisonous part, is separated, and the calomel being precipitated is worked until it is rendered tasteless. It is then the far-famed King Cure-all of the apothecary's shop, and is prescribed almost indiscriminately in all cases of disease, making it a *specific*, which is one of the boldest strokes at pathology and nosology that we know of in the old school. But we will be serious, and give calomel the candid examination that suffering humanity requires, and yet more especially because practitioners who administer the article are totally ignorant of its nature or effects. Calomel appears to the naked eye to differ but little from wheaten flour, but as we know it to be of metallic origin, we examine it through a microscope; we perceive its metallic particles as rough as porcupine quills, or barbed metallic arrows. These are thrown into the sick man's stomach for medicine, and although combined with acid, it retains enough of the nature of quicksilver to be roused to action by the heat of the stomach: they pierce and irritate the coats of the stomach and throat, rouse the liver, smite the salivary glands, and cause a flowing of these fluids, and some of those particles in passing the coats are taken for the itch, or some cutaneous disease; but, alas! the arrows of this metal do not all pass to the coats: some of them, taking a direction for the extremities, would be so tardy in their progress, that nature would clothe them with a glutinous matter to stop their irritation. But even then the victim is converted into a thermometer; for, as the temperature of his system is raised or lowered by heat or cold, the expanding and condensing of the mercury will irritate or burst the sheaths, and salivate, months or years after the dose has been taken. (See our "Lectures on Medical Botany," pages 54 and 55.) We have not yet told the worst of the tale, for these particles of mercury and acid easily perforate the periosteum and come in contact with the bones. Our readers must bear in mind that acids and alkalies have such affinity, that acids will quit any other substance to combine with an alkali, and that bones, teeth, nails, the hoofs and horns of beasts, and the beaks and claws of birds, are phosphate of lime; and woe to your bones if you have taken much calomel! for, if the muriatic acid broke down the quicksilver, and reduced it to white powder by uniting with it, what

will it do to your bones? Why produce rottenness and decay! and the mercury, partly or wholly restored to its original state, is lodged within the periosteum. It is known to be the fact, that crude mercury has been found between the dura mater and cranium; which goes to prove that calomel can be restored to its original state in the system, as well as in the laboratory. Calomel causes incrustation on teeth, an unhealthy state of the gums, and, by destroying the teeth, deprives us of our most useful members: in fact, we have heard an experienced dentist say, "that but for the common use of mercury by the faculty, one half of the dentists could not exist." The North American Indian generally has his teeth perfect to old age. Another property of mercury is its insolubility. It is one of the earths and must endure, while time and earth endures. There is no hope that time will dissolve it, so that it will be taken up and thrown out with the perspirable matter, if you ever get rid of it. Yet the faculty often laugh at the idea that mercury taken years before was still injurious to the health of those who had taken it. This, and things similar, move us to the conclusion, that of all the quackery in the world, *learned quackery* is the most to be deplored; for, while the faculty make an ostentatious appearance of knowledge, so as to dazzle the eyes of the community, they lack a genuine knowledge of the healing art, *and the people who depend on them die for lack of medical aid.* We need never be astonished that such men should ask the aid of the iron arm of the law, in order that they might have bread to eat! Calomel may have sometimes seemed to do good. But it is very much like the fable of the horse and the boar. The horse being unable to overcome the boar, implored the assistance of a man, who agreed to help, provided the horse would be clad with saddle and bridle, and let him ride, to which the horse consented (perhaps as cheerfully as ever a patient took calomel); but after the boar was vanquished, the horse found himself a servant the remaining part of his miserable life. There are many thousands in the present day that are beginning to look with great distrust upon a system in which not only mercury, but many other poisons are used, and the very means taken to restore the sick that will destroy life. But among the remedies in our system of Medical Botany no poisons can be found. Our food and medicine grow together on the same soil, are governed by the same laws, are gathered by the same hands, and will, in a greater or less degree, have the same effect.

And here let us be permitted to say, that if Lobelia is what its worst enemies have called it, it is still preferable to calomel, as the soluble part acts on the stomach like electricity, and the insoluble part is thrown out in vomiting: there is no possible danger to be apprehended, as there are no chyle-ducts leading from the stomach to the thoracic duct, in any other animal but the dog. Therefore if Lobelia be actually poison, it can never be incorporated with the blood like arsenic; and even in the case of the dog, we find Professor Calvert stating to the Select Committee of the House of Lords, that he tried to poison the dogs by using large quantities, "*but the dogs did not die.*"

24, *Montague-place, Russell-square.*

ON POISONS.

(*Continued from page* 112.)

Hyosciamus (henbane), a narcotic-irritant poison. Even when the dose is not sufficient to destroy life, the symptoms are excitement, full pulse, giddiness, loss of power and tremulous motion of the limbs, sleepiness, &c. When a large quantity has been taken, the more serious effects are manifested, as loss of speech, delirium, confusion of thought, insensibility, coma, cold perspiration, tetanic rigidity, deep and laborious respiration; death takes place in a few hours or days, according to the severity of the symptoms. The medicinal dose of the powdered leaves is from five to ten grains; of the seeds, from three to eight; of the tincture, from thirty to one hundred and twenty; and of the extract, from five to ten grains.

Dr. Burder states, that he has observed great inconvenience to follow from a dose of ten drops of the tincture repeated every six hours; after three or four doses there was pain, with oppression of the head; ten drops, given in equal doses at an interval of six hours, were followed

by pain in the head, flashing of light before the eyes, and delirium. (See *Taylor on Poisons*, page 122.) Yet, independent of all this, hyosciamus is a very favourite remedy with very many of the faculty, and Dr. Griffin, of Limerick, did not scruple to give four hundred grains of this poison, in conjunction with four hundred grains of opium, in four hours, to the late Mr. Stafford, M.P. Dr. Marsh might well exclaim, "the treatment was very strong!" We should think so.

The diseases in which the faculty employ this poisonous agent are sleeplessness, accompanied by a hot skin, thirst, delirium; also in neuralgia, and spasmodic affections, in bronchial irritation, producing cough, and in diseases of the urinary organs; externally employed in fomentations, &c., to diminish pain in glandular enlargements, painful ulcerations, &c. So we see it is pretty extensively used for a great variety of complaints, which, were they treated by our botanical medicines and system, would be much sooner cured, and without the dangerous consequences too often experienced by the use of this deleterious production.

Aconite (monkshood). Five grains of fresh extract have produced death in three hours. Dr. Mace, of Birmingham, died from the effects of not more than eighty drops in ten doses, extending over a period of four days. The preparations of aconite, therefore, even when used medicinally, are likely to produce death. It produces a powerfully sedative impression upon the nervous system; it paralyses the muscles of respiration, and causes asphyxia, and produces syncope, the last being the most common form of death in man when the case is protracted for some hours.

Aconita. The alkaloidal base of aconite is the most formidable poison which has yet been discovered. It is contained especially in the root—is more powerful than pure prussic acid. One fiftieth part of a grain will endanger life. (See *Taylor on Poisons*, page 763.) Notwithstanding all this, the allopaths have the temerity to use it. The death of Mrs. Trotter, of Durham, from this poison, must still be fresh in the memories of our readers.

We might continue our account of the legion of poisons used by the legitimate faculty to a very considerable extent; but our object not being solely their description and effects, but to compare their noxious, death-dealing qualities with the innocuous and health-giving qualities of our herbal remedial agents, the administration of which, in conjunction with our system, cure all the diseases for which the poisons are specifically and generally used, and, most unlike them, leave no ill effects behind—effects which, after years have elapsed, have broken forth with increased virulence, and brought about the premature death of the unfortunate patient.

"Bless my soul!" I think I hear some of our opponents exclaim, "what a fuss you are constantly making about poisons! it is perfectly nauseating." Truly the poisons are; and if your stomachs cannot bear their mere description, we should think their introduction would be still more unpleasant. "Why," our antagonists may exclaim, "do you not spare us the infliction of your reiterated animadversions upon the poisons and our practice? for there is nothing that we eat or drink but contains absolute poison; therefore we should advise you to give up eating and drinking, by which means we should get rid of at least one thorn from our side." No doubt this would be a consummation most devoutly to be wished by you, but we respectfully intimate that we shall not die to please you; for, in the first instance, we shall not take your prescriptions; and, should we become out of health, our remedies are amply sufficient to restore us, without your interference.

As regards poison being a component part of our food, we do not deny. Perfection and harmlessness are not inherent in any natural or prepared production; and though poison is contained in them as a constituent part, it is in so homœopathic a quantity, that it most generally does no harm, without an inordinate quantity be taken. Many fruits, nuts, &c., contain poison; and even deadly poison can be extracted from the staff of our existence, bread (viz.), alcohol, in so concentrated a form as to produce death with great rapidity; and therefore, we who decry poisons must neither eat nor drink. This is indeed overstepping the mark most

ludicrously; notwithstanding which, we are perfectly content to take the quantity of poison naturally contained in our food. What we contend for is, the total abolition of the sale and administration of poisons in their concentrated form, which can be extracted from our food, as also the host of deadly minerals and poisonous herbs, so much vaunted of and used by the allopaths. And we again repeat, and shall continue to repeat to the end of our lives, that what disease can be cured by poisons, assuredly has been, is, and will be cured by our innocent, nature-assisting botanical remedies and system, in much less time than by the allopathic treatment; and, what is even of more importance, they never leave the minutest trace of a deleterious nature in the body, their whole operation being from first to last mild, efficacious and perfectly curative.

ON THE

INFLAMMATION AND BLOOD-LETTING CONTROVERSY.

We have thought this subject of so much importance, that we have no doubt of its being highly acceptable to and worthy of the serious consideration of our readers. It has been carefully and as shortly as possible collated from Dr. W. O. Markham's remarks, commenced in the *Lancet* of October 31st, 1857.

Both parties are tolerably agreed upon this, that blood-letting, as at once practised, is now an affair of the past. The question at issue is not so much, Ought we or ought we not to bleed? but, How is it that we do not bleed? for it is a curious fact, that now for the first time since medicine has had a place in history, the most prime, powerful and ordinary means of treatment heretofore adopted in inflammation (viz.), bleeding, should be considered an unnecessary remedy. Every one, we should suppose, surely must be desirous of knowing why such a change has taken place; for, are we to believe, that all the blood shed scientifically has been in vain? the quantity of such vital fluid shed by the lancet being more than that shed by the sword. They are also agreed, that internal inflammatory disorders, as we meet with them in the present day, do not require bleeding, and that bleeding is an obsolete remedy; but one party affirms that it has become so, because the conditions under which its use was demanded no longer exists; that disease has *changed its type;* that the present inflammatory disorders are not the same as in former times, and that this change took place somewhere about the year 1800, or at least began to manifest itself. Consequently, inflammatory disorders no longer exhibited those indications which demanded emission of blood from the body. Thus, then, in a change of the type or emblem or representation of diseases, is found by one party a solution of the change of treatment; for an alteration in the character of a disease would require an alteration of treatment. This is the reasoning and explanation given by one party.

On the other hand, it is alleged by Dr. Bennett and his party, that the above are mere assertions, not being founded on rational facts.

It is the knowledge of the nature of diseases during the present generation which has wrought the revolution. Chemistry and the microscope have unfolded a new world of facts, of which our forefathers were ignorant. Our pathology has given us a more positive insight into inflammation, and it *has not* changed its type, being the same unchanged disease it was two thousand years ago; and bleeding, instead of aiding Nature, thwarts her.

The old physicians were unblessed with a knowledge of corpuscles, capillaries, and of the elements essential to a healthy or a perverted nutrition, and thus they fell, lived and died in error.

Such are briefly the explanations of the point at issue, given by the two opposing parties. This, it will be seen, is no vain inquiry; for, if one party be right, bleeding has numbered its days; if the other, it may resume its old position. Moreover there is a third party, who, caring little about the past or future, but only the present, affirms that bleeding is still a right remedy, and is less frequently used than needed.

Such are the positions maintained by the parties engaged in the controversy. We will now endeavour to show what value may be supposed to attach to each,

therefore will consider the subject under the following heads:—First, is it true that diseases have changed their type? Secondly, is blood-letting (rightly applied) a right remedy in inflammation and in other disorders? and, if so, is it not less resorted to at the present than the welfare of the patient demands? And thirdly, how may blood-letting be supposed to act upon and influence inflammations or other disorders for which it is practised? First, as to the change of type in disease, which means a change in the condition of the body diseased: pneumonia (inflammation of the lungs), for instance, is the same disease now as it ever was; but the body in which the inflammation manifests itself is changed, for not only here, but at the antipodes likewise, men can no longer bear the bleeding they were once beneficially (?) subjected to. All must admit our knowledge now is vastly superior to and different from that which our forefathers possessed. When Cullen speaks of pneumonia, he means the whole of the inflammations, either of the viscera, the thorax, or the membrane lining the interior surface of that cavity; and adds, that the symptoms differ but little in these inflammations, nor do they lead to any difference in cure.

We are now to ascertain the existence of pneumonia, in cases where there is so little of pain, cough and fever, that the name of pneumonia would not have been applied to them in former times; these having got well under rest, regimen and shelter. Therefore, those cases only were looked upon as inflammation of the lungs, in which the symptoms were urgent and well defined. Hard, quick pulse, high fever, rusty sputa and local pain, were the representations of the disease to our forefathers; every case of theirs being a typical and exquisite case. The case described by Cullen: and rare. So states Dr. Gregory, and Dr. Allison states it is so now. It was benefited by bleeding in Gregory's time, and Allison holds it is now the best remedy. Here, then, so far as the comparison holds, it is in favour of complete identity of disease, from past times until now.

Our forefathers would not have called the slighter symptoms pneumonia, and would have treated them as we do now. In the other case where the symptoms were so severe, and the disease rare, they denominated pneumonia, and bled for it accordingly. Thus, the rare and exquisite cases they recognised, and bled for them. The milder cases they did not, and consequently did not treat them so. How then are we to account for the large blood-lettings formerly in vogue? Simply by the meaning attached to the term, which meaning has not always been sufficiently kept in view by those who have discussed the subject of inflammation and its treatment; Cullen meaning by pneumonia, not only inflammation of the lungs, but also pleuritis, bronchitis, endocarditis, pericarditis and many other affections of the thoracic organs. Thus, it appears clear that the diseased conditions for which these large bleedings were practised, and were comprised by Cullen under the general term pneumonia, included all those affections, of whatsoever nature, which gave rise to certain special symptoms (viz.), to fever, short breath, cough, thoracic pains and expectoration. Those symptoms representing the so-called pneumonia, being of course all more or less marked in individual cases, and some one or other occasionally absent, for the typical case of Cullen's pneumonia, was rarely observed by Gregory.

Thus, bleeding was practised indiscriminately in diseases of a most dissimilar nature, presenting a given number of like symptoms, through which agency the thoracic organs might have been secondarily disturbed; so bleeding must have been misapplied; consequently from our forefathers' want of pathological knowledge, they very often bled when highly prejudicial to the patient.

The type of pneumonia, &c., has not changed, but we are now much more competent to discriminate between true pneumonia and other forms of disease, and had they been as well acquainted with pathology as we are, it would have worked an entire revolution in their method of curing diseases.

Even those most favourable to blood-letting admit, that the lancet is a powerful instrument for evil, and that its application must ever, in some sense, be guided by conjecture.

It is admitted, by no mean authorities of the day, without reference to any change of type in disease, that cases of inflammation which require bleeding rarely happen. Strange, how theory and practice vary! A highly valued writer states, that bleeding for inflammation is the most efficient remedy, but he rarely, if ever, uses it, because (especially among hospital patients), *the time for bleeding is gone by.*

Dr. Watson most strenuously directs bleeding early in inflammation. Now for the important question, Is it possible for us, in the present state of medical knowledge, to treat inflammations, at the very earliest periods, at the moment when the remedy admittedly is of the most effective service, and when its practice is least productive of *future evil?* From the above statements, the important answer to this important question, it must be admitted, that it is almost impossible, and must have been so in ordinary cases, to apply the remedy in question during the very early periods of inflammation. This narrows and more clearly defines the subject, and leads us to consider the effects of blood-letting in cases where it is ordinarily practised (viz.), in other and later stages of inflammation.

(To be continued.)

AN ESSAY ON THE TEETH.

I PRESUME it will be admitted by many, certainly by the physicians of every class, that defective, decaying teeth must be the cause or occasion of more cases of disease than the world are generally aware of. It is well known to the faculty, and to many others, that in respiration the atmospheric air undergoes a very material change in the lungs, where its oxygen is disengaged and imparted to the blood, by which its vital energy is probably increased. Our blood of course receives a portion of the air we breathe, though in a decomposed state. Thence it is perfectly natural to conclude, that the more pure, sweet and uncontaminated, the better for our use. If unimpregnated with any offensive fœtor or deleterious quality, the more suitable it is for respiration. The purer the air, the more conducive to health.

This will readily appear by reference to certain circumstances. Place a person, for instance, amidst the dense effluvia arising from a putrid and putrefying mass of vegetable and animal substances: as decomposition and exhalation go forward, the smell is offensive; we readily apprehend some evil consequences, and naturally realise that the floating vapour carries the seeds of disease upon its wings; a fear of sickness is produced. Now let me inquire, when teeth are decaying and rotting away in a person's mouth, so that the breath becomes loathsome to all who approach near enough to catch a snuff of the putrid exhalation, can people persuade themselves in such a situation that a disease-engendering poison does not lurk in every breath they draw?

It may perhaps be said, that there is a material difference between the decomposing state of vegetable and animal substances in their putrefying process, and the mere decay of a *tooth.* True, the volume of stench may be greater, but it must be recollected that it is not a transient but a fixed, abiding and permanent evil that a tooth occasions. It is not only its immediate, but enduring, effects that should alarm our fears. The blood and all the fluids that go to the general nourishment of the system participate in the consequences. Those regions of the stomach, &c., where digestion is performed, must sustain an injury, and all the organs of digestion become immeasurably impaired; a large portion of azote be absorbed into the system, in the bronchial vessels of the lungs; the blood itself must share a measure of the taint; and the vital stream of life be poisoned at the fountain.

Such an amount of *miasmata* existing or accumulating in the mouth, throat, stomach and lungs, as to give offence to others, cannot fail to have an insalubrious effect upon the individual who has the misfortune to be the personal reservoir of so much filth and putrefaction. Must not the consequences be something like fixing our residence adjacent to a putrefying carcass, or in the vicinity of marsh miasmata?

The inference from the whole is, that if we would preserve our health, that among other means we should not neglect to keep our mouths and teeth effectually

cleansed. It should be a matter of our daily attention. Our inducement may derive additional strength from the consideration of its agreeableness to ourselves, and the great addition to our agreeableness and good looks in the estimation of others, to be derived from sound, clean teeth, and a sweet breath.

Some females are blessed with fascinating shape and face, almost divinely fair; but when they open their lips (dear, lovely creatures!), what a mouthful of rotten teeth, or perhaps a few solitary, black, tartar-encrusted stumps and putrefying roots, where teeth once stood, present to view! Should the enrapturing charms on which we were gazing entice us so near as to cast the respiring vapour issuing from their lungs upon our olfactories, oh! how disgusting! Their vile breath defeats the power of all their witching charms! As a Philanthropist, I would suggest some friendly advice to all whom it may concern. If teeth are much decayed, have them extracted. If they are but slightly affected, have the decayed part separated and removed by a skilful and judicious dentist, who will know how to manage, and give you sound advice. I would not recommend a travelling impostor, who does not regard his responsibility, but some gentleman of established reputation. The business of a dentist is mechanical, and the knowledge of his art must be practically acquired, as much as any other kind of mechanical business. A good workman should be consulted, and if he be an honest man he will wish to promote your comfort and convenience, and to advance your individual happiness, and not to line his pocket by filching from you an extravagant demand for his services.

If a tooth has been so neglected that the calcareous incrustation adheres firmly, have it removed. To keep the mouth and teeth clean, use a fine powder of the bark of the root of bayberry and Ohio curcuma, equal parts, with the assistance of a finger, every night, but it need not be brushed out of the mouth or from the crevices of the teeth until the next morning; then take a soft brush, and with a glass of salt and water, moderately warm, cleanse them well. After eating, be sure that no particles of food be left between the teeth. To this advice, the latter part of which will apply to those possessing sound teeth and sweet breath, I would add one word more, and impress, if possible, in a manner that it would never be forgotten: it is simply this—*dispense with the use of calomel for ever!*

In addition to what we have before stated we would remark, that rubbing the teeth with white ashes, or with the powder of burnt bread, or common charcoal, is good to cleanse them. Pearlash dissolved in water is an excellent mouth-water for foul teeth and bad breath. But of all the tooth-powders in use, none exceed the Lobelia-leaves reduced to the finest powder. Lobelia and bayberry combined, or equal parts of bayberry, curcuma and Lobelia, may be used with advantage night and morning, after which the mouth may be cleansed with salt and water, or a solution of pearlash in water. In addition to these remarks we would observe, that as decayed teeth may affect the stomach, a dyspeptic stomach may send up fumes to injure the teeth and produce the calcareous incrustation, as soot accumulates from an abundance of smoke in a chimney. In these cases the stomach should be cleansed with an emetic; digestion should be promoted; pearlash and curcuma may both be used occasionally to sweeten and strengthen the stomach, that we may with propriety attend to the teeth. Children whose digestive powers are impaired by the foolish indulgence of parents who can never deny them anything they crave, who feed them daily on sugar, sweetcakes, candy and sweetmeats, to the utmost of their wishes, will have rotten teeth till they rot out. No attention that can be paid to the teeth, in such cases, can preserve them while the stomach is neglected or abused. The diseased condition of the stomach will affect the teeth, rotten teeth will, in turn, affect the stomach, and in a mutual interchange of injuries, the work of destruction goes on, and, in many instances, some mortal malady supervenes, and death winds up the scene.

The fœtid breath of the intemperate is notorious of everything which is offensive in putrid animal matter: thus such an active fœtid vapour rising habitually through the mouth, and its crudest part

being retained and adhering to the teeth, must seriously injure them. Some constitutions may be so firm as to sustain the assaults of the ravager, without these morbid effects becoming immediately manifest; but sooner or later these consequences will arrive to a greater or less degree with all who are habitually intemperate. Among all the causes of rotten teeth and fœtid breath, the use of mercury is the most pernicious.

Therefore, at parting, we must add, Dispense with the use of ardent spirits and mercury for ever!! If you would preserve your teeth and health, use no calomel for medicine, nor any ardent spirits for excitement.

AN ASTONISHING CURE OF SEVERE ERYSIPELAS.

THE following case is one mentioned by us in our lectures at Sussex Hall, and is a final confirmation of the cure:

TO DR. COFFIN.

Dear Sir,—As a late patient of yours, I feel it but justice due to you in bearing my testimony to the efficacy of your Medico-Botanical system and treatment. I most fervently believe, that had I continued under the treatment of the legal practitioner, I should long since have been numbered with my ancestors in eternity. My case was a very severe one of erysipelas in the foot, leg, and thigh, which were of a size most frightful to behold. I endured great and excruciating pain and suffering, besides labouring under a very severe cold. In fact I was in such an extreme state of prostration, that for days I was unable to take any food. My medical attendant I believe did all he could, but to no purpose, for I continued to get worse: he then said he could do no more, with the exception of amputating the limb, to which I would not consent, as I considered it would have endangered my life: he then wished to send me to the hospital, to which I also would not consent: he then left me, and refused to come again. Being thus left without medical assistance, and apparently having but a short time to live—for it was the opinion of my friends as well as my own, that if I had permitted amputation of my limb, the result would have hastened my death—my brother then advised me to send for you, sir; I consented; you promptly attended, and I have reason to bless the hour you did so, for I soon experienced great benefit under your superior and skilful treatment. And I sincerely thank God for enabling me to say, that by the aid of your system, I am again restored to health and strength, and am the greatest object of wonder and surprise to my friends, who never thought that I could have recovered the use of my leg and foot.

Independent of myself, there are numbers of my fellow creatures who have reason to bless and thank God for enabling you to practise your inestimable system.

Gentlemen of the legal practice are in error: had I followed them they would have legally killed me: their system is undoubtedly wrong: it is true there are clever men among them, and do the best they can with a bad system.

I hope you will accept my grateful thanks, as I am in duty bound to love and respect you and your assistant Mr. Waters to the latest period of my life. I am, your humble and obedient servant,

WILLIAM PERREN.

17, *Medcalf-place, near the Angel, Islington.*

PROGRESS OF MEDICAL BOTANY.

To the Editor of the Botanical Journal.

SIR,—Some twenty years since an efficient botanic system was not known in this country. Botanical practice was undefined, and possessed but little pretensions, till the principles were introduced by the celebrated Dr COFFIN, the beneficial influence of which has been indeed a boon conferred upon the human race, and must stamp universal credit upon its distinguished founder. Vegetable medicines certainly were compounded as specifics for diseases, but without regard to system, till Dr. COFFIN introduced his, lectured upon it, and published the result of his great experience in his invaluable "Guide to Health," which exemplifies the simplicity and truthfulness of his system, thereby enabling thinking men, men of common sense, however deficient in book-learning and literature, to perform cures

really astonishing, and restore many to health after they have been given up and left to die by the regular practitioner; and results are obtained by a diligent study of Dr. COFFIN'S works in conjunction with his efficacious and well tried botanic remedies and system, which, in the face of all opposition, will progress, and earn that large meed of praise it so richly deserves. I also with much pleasure bear my testimony to the recently great improvement in the Journal: it is now what we have so long wanted, a faithful, firm, and energetic advocate of Dr. COFFIN'S glorious system, and from the talent displayed in conducting it, we may, with certainty, expect the happiest results.

I am, sir,
Yours truly,
WILLIAM ANDERSON.
Shotton, near Durham.

THE USE OF PURE WATER.

(Continued from page 167.)

THE Father of Rivers itself, too, is in its turn, only a pigmy when compared with another American stream which is yet more vast, and which pours out into the sea, through a mouth that is thirty miles wide, as much water in five hours as the Thames does in a year. Its fresh floods rush out into the salt sea, five hundred miles from the shore, and sometimes leap up against the opposing currents as a wall of water one hundred feet high, and with a roar that can be heard by sailors many miles away.

Besides these hundreds of great rivers that are always pouring their floods into the sea, day by day, and night by night, there are thousands upon thousands of smaller streams doing exactly the same thing.

If all the water which falls to the ground as rain, in England, in the course of a single year, lay where it fell, instead of flowing off as rivers into the sea, the dry land would be found to be covered up everywhere, to the depth of three feet.

If all the water which falls to the ground, in some parts of America, in the course of a single year, lay where it fell, it would cover the face of the land, at the end of that time, to the depth of twenty-two feet.

If all the water which falls as rain, in some parts of India, lay where it fell, it would cover the ground to the depth of twenty-four feet in a year.

Thus wonderfully vast is the supply of water God has furnished for the constant washing of the surface of the earth. Now, I would have you seriously ask yourself the question, whether it is at all likely that the Almighty, who has planned the world, and has made everything in it so perfect, has been at the pains to send this great quantity of water for no purpose. I am sure you will at once feel that such cannot be the case, and that pure water must be for some use that is as great as the supply; that, indeed, like fresh air, it is one of the chief blessings which God has sent, for the benefit of His creatures.

Like all the other blessings that God has given to man, water serves many purposes; but among these the one of cleansing away dangerous filth, is by far the most important. We have seen what has happened when water was prevented from doing its purifying work, where crowds of living beings dwell together. It would be of little consequence, that the mists and the rains should clothe the surface of the earth with grass and corn, if deadly plagues were constantly sweeping away the mouths that ought to be fed by the grain.

God, then, sends rain down abundantly upon the earth, to wash away decaying matters and dangerous filth, just as He sends the sweeping wind to carry off and destroy the poison-vapours, which are bred of decay; and it is only those covered places which man constructs for his dwellings, that are not thoroughly cleansed by the rain.

You, my friend, who choose to live under a roof, in order that you may preserve a dry skin and dry clothes, must however do, with regard to pure water, precisely what you do with regard to the fresh air. You must bring in, artifically, as much as is required for purposes of cleanliness. God has taken care that the great purifier shall be so plentiful that no human being in civilised lands ever can have any reasonable ground of excuse to

offer for not employing it. You say you live in a house which has had no provision made for bringing in a supply of pure water, and that you cannot afford to buy pipes, and have them laid down. But are there no pumps and wells anywhere near? Or, if there be none at a short distance, would it not be better that you should go, even a long distance, and be at the pains to fetch water thence, rather than live in filth, at the risk of attack from deadly disease.

Put the case in this way. Suppose that, some day, when you walked into your kitchen, or your bedroom, you found there a deadly viper, rising up on its tail, and opening its horrible jaws, with its poisoned fangs ready to be plunged into your flesh: would you be content to sit down close by, and leave it to perform its murderous work upon your body? Indeed you would not. You would start away from it, and snatch up the first stick or poker, you could lay hands on, and you would fight bravely and boldly to destroy it, and get rid of the danger that was threatening you. And yet you are willing to sit down with a viper not a bit less deadly, that is lying in wait for your life; and that is all the more dangerous, because you cannot see it. This viper, if you leave it in occupation of your house, will steal from room to room, and glide up the stairs, and lurk round your pillow, and hide itself in your very bed. In the dark hours of the night, when you are helpless and fast asleep, it will bare its horrid fangs, and plunge them, perhaps, into your flesh; perhaps into that of those who are dearest to you; and in the morning, a parching tongue and a burning cheek will show, too late, what has happened, and that the poison is festering in the blood. Yet, how much less trouble you would have to take, to make yourself safe from the attacks of this insidious, viper-like foul air, than you would so readily take to rid yourself of the less dangerous enemy that you could see! A few pails of water, brought from the nearest well every day, and poured down the house-drains, until everything that was dangerous and bad was washed clean away, would effect all that is required.

Remember, then, that sewers cannot carry things away when they are choked up. Sewers must be kept open and clean by constant attention and care, if they are to do the work for which they are intended. If they are not kept open and clear, they do not perform their work, but become actually mischievous, instead of being of service.

Choked-up sewers are mischievous, instead of being serviceable — worse, actually, than no sewers at all—for this reason: they act as reservoirs for large quantities of decaying substance, and also of poison-vapour, which is bred from these. Many persons who are quite incapable of allowing dirt and filth to lie about in their houses, nevertheless, live perfectly contented with a great amount of the same dangerous materials gathered together in pipes just beneath, simply because they cannot see them there. Choked-up sewers are practically so many holes, dug into and beneath the floors, for the reception and accommodation of poison; and water-traps, at the entrance of the drain-pipes, afford no protection from the hurtful vapours that are generated in them, because water, being heavier than the vapours, drives them out of the pipes, when it runs in. The expelled vapours cannot get onwards, through the choked sewers; consequently, only one course is left to them. They must rush back into the house, bearing with it disease and death.

What would you, my friend, think of the prudence and wisdom of an acquaintance who dug snug little nests behind the skirting-boards, and beneath the floors of his house, and then filled these with vipers, which, having no possible means of getting away provided for them, must of necessity return inwards, into the rooms of the dwelling, whenever they were induced to leave their nests? Now, this is precisely what people do who place refuse substance in drains that are choked up at their outlets. The bubbles which are, from time to time, driven back through the traps, are poison-bubbles; they are like venomous vipers stealing forth into the house, from underground nests, where they had been allowed to lurk.

There is a snake in hot countries which is of so deadly a nature, that it kills at once whomsoever it bites. This dangerous

snake climbs among the branches of trees, and glides along under the grass, seeking stealthily for its prey; but God has placed some small pieces of loose gristle in its tail, which rattle together whenever it moves, and so give notice that the reptile is near. This deadly snake is thus heard when it cannot be seen, and at once avoided by all living creatures that know what its nature is.

Now, what the rattle in the tail of the rattlesnake is to the creatures that this snake preys upon, a bubbling sound issuing from trapped drain-pipes, or closets, upon water being poured into them, is to the inhabitants of the house: it is an indication of danger. A bubbling sound at the inner extremities of drain-pipes, is a sign that those pipes are choked up somewhere within, and need to be immediately cleared. Never rest one minute, when you hear this warning sound, until you have traced the stealthy danger to its hiding-place, and driven it away.

Poison-vapours, however, have no warning rattles, unless when they enter dwelling-houses in this stealthy way, through trapped drain-pipes. But they nearly always carry about them another mark, which just as surely betrays their presence, if it be duly noticed.

(To be continued.)

NOTICE.

Dr. COFFIN may be consulted gratis, as usual, every Saturday evening, from four to eight o'clock, at the Botanic Establishment, No. 24, Union-street, East, Spitalfields. *Patients not admitted to the waiting-room after eight o'clock.*

Dr. COFFIN may also be consulted at his residence, 24, Montague Place, Russell-square, daily *(Sundays excepted)*, from one to two o'clock (fee one guinea), on any day except Monday, on which day the fee will be five shillings only.

Advice gratis, every morning, from ten to one o'clock, at the establishment, No. 134, High Holborn, nine doors from New Oxford-street, nearly opposite the London and Westminster Bank, Bloomsbury Branch.

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Mr. CALDWELL may be consulted daily, from 10 to 12 in the morning; from 2 to 4, and from 6 to 8 in the evening (Sundays excepted).

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All letters should be addressed, "To the Editor of the Botanical Journal, 134, High Holborn."

The real name and address of the writer of a letter must be given i confidence.

POST-OFFICE ORDERS and all communications for goods, &c. to be addressed to William B. Ford, 134, High Holborn.

The Botanical Journal and Medical Reformer is published Fortnightly, at No. 134, High Holborn, London, where all orders must be addressed.

COFFIN'S
BOTANICAL JOURNAL
AND
MEDICAL REFORMER.

"Human experience, which is constantly contradicting theory, is the great test of truth."—Dr. Johnson.

No. 254—Vol. VIII. SATURDAY, FEBRUARY 6, 1858. Price 1d.

THE GLEANER, No. 6.

In our last, we briefly descanted on the depletive system, and the corresponding regimen of remedies: we shall now lay before our readers the Botanic System, and the nature of the remedies used in the practice; and this will present the subject in a proper light, and on a general scale. All we ask of the people is to divest their minds of prejudice, and to remember that we are all subject to disease. We may soon be compelled to submit and try the experiment of some system of medical practice, and it is highly important to investigate this subject with candour and deliberation in the time of health, and not leave it to the fatal moment of disease. The Botanic System, with the nature of the remedies that are employed, will be presented for consideration, and such a sketch of the anatomical facts as space will admit of, and will, in some degree, show the correctness of its basis.

All animal bodies are constituted by the combined proportions of solids and fluids, the solids being indispensable to strength and form, and the fluids to motion and sensibility. The solids are earth and water, the fluids air and fire. The solids, arranged with wonderful mechanism, and designed for a moving machine, are porous substances; and these innumerable pores, through every part of the body, are designed to carry away the vapour which generates within the body from the unwholesome matter inhaled, swallowed or absorbed. The body, thus formed, is framed and based by ossified particles called bones; and these are not only mechanically joined together at proper parts by their articulations with each other, but bound to each other with strong cartilages at each articulation, and with elastic cords to their relative members, through every part of the whole machinery; and are thus prepared, by the contraction and dilatation of these elastic cords, &c., to propel the different parts to motion, and to circumscribe the motion to proper bounds. Besides these innumerable cords, muscles, ligaments and sinews, there are an infinite variety of nerves distributed through all parts, and wisely arranged to convey the electric fluid and sensibility to every part. The glands are also situated in the various parts of the system, to preserve and secrete the proper moistening juices, to support and replenish the machinery, and prevent its wearing from the constant friction of the parts. While these are so wisely arranged for their uses, the arteries, with all the veins which they supply, are designed to convey the blood, with its warmth and stimuli, to every point through the whole man. All these arteries and ramified veins are proportioned in size and structure to the different offices assigned them, or to the quantity of stimuli their dependant part require, to excite them to perform their respective functions in the harmony of the general system. In order to the support of the body, a quantity of food is required, and that food must not only act in harmony with the animal economy, but must be properly prepared by mastication, during which process the saliva glands are constantly emitting a quantity of fluid to

moisten the mass of the aliment for a proper fermentation in the stomach. This, as we have often stated in our lectures, is the first process of digestion, and should be well performed in order to health. When man was thus formed, and the machine was ready to perform all the motions for which it was designed, the breath of life was breathed into him. This *breath of life* was atmospheric air, which contains a large quantity of caloric, or the basis of heat. This caloric being made free, flew through the whole body, through the medium of the nerves, like electricity on the wires, producing motion and sensibility in every part, and man became a living soul. This put into motion, the stomach craved food, for it would soon be drained of its moisture. Food was taken, the digestive organs performed their offices, and the secretory medium supplied every part with its stimulus; so life was begun, and is an effect produced by the agency of the fluids, viz. heat and air, upon the well organised machine of the solids. Life is therefore a forced state, and requires constant stimuli on the vital fire for its perpetuation. The air receives its propelling power from heat, for where heat and air comes into contact, the heart rarefies or expands the air that can be no longer confined, but must have vent, and thus its progress through every pore giving a determination to the surface, and propelling every part into motion; while it diffuses itself through the whole frame and escapes through the innumerable pores in every part of the body, carrying off with it the unwholesome and surplus matter of all we eat and drink, amounting to five-eighths of all. If we eat and drink eight pounds in twenty-four hours, five pounds are carried off through the pores, and but three pounds by all other channels. From the porous secretion, having the eye aided by a microscope, a constant steam or vapour may be seen proceeding from every part of the body, and the pores standing in rows, thickly set in the whole sur ace, like an infinite number of wells filled with water. We have said above, that heat was the moving cause, or we might say the principle of life; and to keep up the heat, a proper degree of stimuli is indispensable, and this stimuli must be perpetuated in part at least by food well digested. But if the system get impaired, the organs of digestion become weakened and disease is the consequence. In proportion as wholesome food is digested, so is the degree of health or disease of the man; and in proportion to the diminution of heat, so is the impaired degree of the digestive organs. The effect of the various degrees of the loss of heat produce different symptoms, which are known by a variety of names and regarded by the faculty as being so many different classes of disease, requiring as many different medicines and modes of treatment. Here is the fatal error of the old school, which leads the faculty to exert all their energies against the different effect of disease, and leave the cause unremoved; which will remain so, except *nature*, or the energies of the system, removes it. The stomach being designed for the receptacle of food, and the mouth and teeth to render it suitable for that receptacle, so the food, by fermentation in the stomach, generates heat, or, in other words, it separates from the alimentary mass the spirit or stimulating property that is in it which passes into the blood, supplying the waste and keeping up the stimuli of the blood and the warmth of the system. Like the crushed grain for distillation, by the process of fermentation in the vat, it is prepared to yield its stimulating spirit, so the food, crushed in the mouth and fermented in the stomach, yields the stimuli to keep up the warmth and nourishment in the animal economy; and this stimuli or heat is the flame which burns in every living animal, and without which life cannot be perpetuated. Whatever may be received in food or drink, inhaled or absorbed, or in any way enters the system, which will either obstruct or weaken or derange the vessels of the digestive apparatus, or communicate an unwholesome taint to the contents of the stomach, may reduce the heat or stimuli and render imperfect the digestive operation, and vitiate the chyle and other parts for absorption. Now whether those organs become vitiated by unwholesome food or drink, or weakened by marsh miasma or any other deleterious vapour, inhaled or absorbed, the effect is, the digestive

powers are weakened, because heat is reduced, and the machinery moves proportionally slow, the absorbents are only able to take up the thinner parts, while the grosser are left behind and corrode the stomach, communicating an unwholesome taint to the whole of the system. Sometimes this unwholesome matter, entering into the circulation, locates and causes an obstruction on some particular parts, as the membranes of the stomach or intestines, the liver, or lungs, or kidneys, &c. Should it thus locate on any particular part, producing a complaint, it at once is christened "*liver complaint*," "*pulmonary complaint*," "*enlarged spleen*," "*pleurisy*," "*scrofula*," &c., &c. This has given rise to the almost endless catalogue of disease, and consequently the endless list of remedies, as in the books of the old schools, and the complicated practices that follow. Whenever the system becomes clogged or loaded, as we have described above, Nature, in obedience to its first law (self-preservation), makes an effort to remove or throw off its enemy: if Nature is too weak to raise sufficient strength to effect its object, and dislodge the enemy, it needs medicine to assist it. Now we have, we think, clearly shown that *life is a forced state*, and that it is dependant on stimuli for its perpetuation; and the only way in which this stimuli can be destroyed, and disease introduced, is by obstructing the system, either locally or generally; and that these obstructions reduce the heat, and thereby impair the digestive powers, and close the pores. The principle is fairly established, that all *good* medicine must stimulate the machine to action, and assist the energies of Nature in forcing and perpetuating that state we call life, as that state can only be forced and perpetuated by stimuli. Hence, to give stimulating medicines that will remove obstructions, and excite the various parts of the system to a lively action, and free them of their accumulative load of unwholesome matter, is all the doctor should aim at; and, in attempting to effect this object, he should use such medicines, and such only, *as will act in harmony with nature*, and always avoid those prescriptions which tend to reverse her laws! Now, for those efficient remedies, we confidently refer the reader to the various articles from the botanic kingdom as described in our "Guide to Health." Our stimulants, astringents and tonics all act in accordance with the laws of the system; and whatever form, as we have described above, disease may assume, remember that there is a diminution of vital stimuli, or heat; and whatever local disease may appear, that this heat must be restored. Lobelia, in all or any form of disease, by its almost electric power, will assist most powerfully; cayenne pepper is a diffusive and permanent stimulant; the astringents remove *or loosen* the obstructive matter, which, by the aid of the stimulants, Nature will carry off; and the tonic or bitter medicines will correct the digestive organs, and assist in that important process digestion. In fine, for years we have, by daily observation and experience, been taught the difference in restoring the sick, by our botanic medicines, in contradistinction to the mineral system, where there is scarcely one remedy but what is opposed to nature, and if taken by those in health, would make them ill; whilst ours, if we are called unfortunately too late, will do no harm, and often ease and relieve when it cannot cure.

24, *Montague-place, Russell-square.*

THE NEW PROCESS OF MAKING BREAD BY MACHINERY.

Among the innumerable improvements, patents and inventions of the present time, very few have for their object the vital interests of the great human family; their aim, their scope, their end being, for the greater part, directed to the arts, sciences, mechanism, and articles of general utility—all necessary in their places, and the last highly conducive to the convenience, comfort and ease of existence, and deserving of every encouragement. Beneficial and worthy of all appreciation as these undoubtedly are, yet there is one thing required without which these could not have been discovered or promulgated, namely, that universal requirement, food; and it is most remarkable, that while all the different manufactures intended to clothe mankind, and to promote other purposes of convenience, utility and embellishment, have rapidly advanced to perfection, the

manufacture of bread has alone remained stationary. The same process which was in use hundreds of years back, still continues, with scarcely any alteration, up to the present day.

This brings us more immediately to our subject; namely, the most important discovery of making bread by machinery of such superiority, that no bread that has been or is at present made can in any degree compete with it. In proof of which, we adduce the following incomparable qualities inherent in this article of universal necessity:

First.—This bread can be and is manufactured with far greater rapidity than by the usual process, forty loaves being made in one minute, and, when pressed for time, sixty-five can be made in the same time; consequently, from two thousand four hundred loaves to three thousand nine hundred can be and are made in an hour, and upwards of three hundred sacks of flour can be made into bread in twenty-four hours.

Secondly.—The bread is more uniform in its quality, and much superior in appearance.

Thirdly.—It is much whiter than any bread heretofore made.

Fourthly.—It is more even in its texture, the vesicles being far more evenly diffused through the mass than they ever can be by the ordinary method.

Fifthly.—It requires less than half the time other bread does to prepare it for the oven.

Sixthly.—No drug whatever is used, nor can any be introduced without injury.

Seventhly.—It keeps *fresh* much longer than any other bread, and is not even objectionable to many when a week old.

Eighthly.—It cuts as handsomely as the finest *pound cake*, and without any waste, the crust being as tender as the finest French roll.

One trial will incontestably prove this truly valuable improvement over the old method, not only in a pecuniary point of view, but also in the superior quality and excellent sweetness of this bread.

This new process of making bread has been now introduced into this country by Mr. John Miller, Nos. 17 and 18, Upper George-street, Edgeware-road, London, who has purchased from Mr. Charles Crum, of America, the sole patent and right to manufacture bread and sell patent rights in Great Britain, France, and the Continental States; and who has, by the introduction of this process, conferred a benefit upon society eminently worthy of the utmost praise, patronage and support. While stockjobbers, gamblers on 'Change, and the whole nefarious tribe, are seeking their own interest at the expense of those they can overreach—while statesmen are legislating upon bills of dubious import, apparently for the good of the community at large, but in truth sinking the great interests of the present and future by sophistry—"straining at a gnat and swallowing a camel"—in order to keep up their position as, and ambition to be, at the head of affairs, irrespective of common sense, of all they owe to the mass of society, their minds, their desires, their wills devoted to the one object, their own aggrandisement and that of their class, even sometimes at the expense of all that is just and beneficial to the millions they are over — while the warrior at their bidding is fighting and destroying cities, towns, villages, giving them over to the tender mercies of an excited, infuriated soldiery, reeking with the blood of their own kind, and perpetrating crimes of the deepest dye with impunity, defacing the fair face of Nature, professing a creed that commands peace and goodwill towards men, and by their acts endeavouring to render that great command of the Creator, "increase and multiply," nul and void; having statues and columns erected to their honour, and monumental tombs to their memory, which describe them to have been the recipients of all the virtues that can ennoble human nature, the truth of which let their lives and actions be the test, and "What a falling off is there, my countrymen!"—while all this is going on — while honours, emoluments, are showered upon actions of dubious import or prejudical to the majority of our fellow beings, should not such a great discovery as this new process of manufacturing bread most certainly is; a discovery that has for its end and aim the absolute good of society, whose paramount object is to confer a marked and decided advantage to all that can come within the sphere of its operation, be

deemed not only worthy of support, but also most worthy of the patronage of the whole civilised world?

Mr. MILLER has now commenced the manufacture of bread by his most admirable machinery, is open to negotiations for the sale of his patent rights, and we would most earnestly recommend men of capital, and bakers having the means, to lose no time in making application to Mr. MILLER, in order quickly to embark in this new and most important improvement; and we are morally certain that not only will such parties not regret their doing so, but will find that with proper attention to business, a fortune and prosperity must inevitably and unconditionally follow.

DR. COFFIN'S MEDICO-BOTANIC SYSTEM AND PRACTICE.

Is it necessary for medical practice, that the practitioner be governed by some systematic principles? To this inquiry every reasonable man will answer in the affirmative. Man is so constituted, that whenever he sees certain effects produced by certain causes, he naturally seeks for some philosophic reason, to enable him to account in some rational way for those phenomena. This property, quality or attribute, inherent in the nature of man, eminently distinguishes him from the rest of the animal creation. Whatever of instinctive cunning or wisdom may be found in brutes does not appear to be the result of that observation, reflection and comparison of facts that belong to human beings. The brutal tribes appear to glide along through life, unconscious of many things that are familiar to rational beings. Carelessly, regardless of consequences, they rush unsuspectingly into danger; in most instances have but little fears or hopeful anticipations of the future. It is not so with rational beings. The great Parent of the universe has assigned to man the high prerogative of tracing, by philosophic investigation, his road for future travel. Hence man necessarily feels in his own mind a responsibility for his own conduct. He cannot realise self-approbation in indulging thoughts, words or actions which he is conscious are erroneous or morally wrong. He cannot divest himself of the apprehension of the connection of his present conduct with his subsequent condition.

Ignorance is not a certain security against suffering. Wilful ignorance will not palliate, but will greatly aggravate, the consequences of an erroneous course. Prejudice cannot furnish a satisfactory excuse for avoidable error. Nothing can falsify truth. It is an eternal unit. Nothing can annihilate the great laws of nature, or derange the natural order of cause and effect. In the great fabric of the universe, nothing appears to be done in vain. Though we know but in part, and see but in part, men may pervert reason, abuse words, run mad about their peculiar notions—system may be built upon system, falsehood may engross men's minds, and become the popular faith of the world—some misguided zealots may hold fast to a strong delusion, even unto death—but truth remains immutable as its Author. It exists in the nature and fitness of things: amid all the mutations of earth and time, it remains invariably the same: the efforts of created beings cannot effect any alterations. System-makers should be on their guard. Truth is always consistent with the whole scheme of created existence. System-makers should be vigilant, lest they admit and teach something inconsistent with or contrary to some known and established truth; something inconsistent with and contrary to some known and established law of nature. System-makers, when weighed in the faithful balance of accurate, philosophical and logical reason, commonly turn out to be bad reasoners. Their plausible schemes often involve some glaring absurdity, or insurmountable contradiction. One common source of error lies here: a man of an aspiring, ambitious mind, with laborious study, will conjure out some new theory. It looks very plausible. He is carried away in the imaginary greatness and importance of his invention or discovery. Thus inflated with self-approbation, he is now absorbed and swallowed up in his schemes and devices; his interest and reputation are now at stake. He wishes to annihilate everything that interrupts its progress, that excites to more successful inquiry, or

exposes the fallacy of his own fluctuating, fanciful projects. This disingenuous selfishness, that ambition to excel in fame, have led many to base, dishonourable extremes, in the road of folly, in all ages of the world. Happy for mankind, unerring Providence moves with a steady wheel, and ever has provided, and continues still to provide, an effective remedy for the eccentric wanderings of the errorist, and to reclaim the obvious footsteps of mistaken mortals closer to the paths of truth. To this end the world has had a Moses, a Zoroaster, a Socrates, a Plato, a Seneca; for this the Christian Messiah appeared with the army of martyrs in his train. In after times, it was discovered that the Christian religion was perverted and corrupted by being blended and confounded with the political condition of the world. Then a Washington, a La Fayette, and a Bolivar were born.

In every age some Heaven-appointed messenger has appeared, who has stood for the defence and propagation of the truth, and have had to face the storm of an opposing and persecuting world, whose business has been to call men from political, moral and physical error, to the love and practice of truth—in the emphatic language of inspiration, we say, "from darkness to light." Error in sentiment leads to error in practice, and the general result is misery, wretchedness, and all sorts of complicated sufferings.

Among these illustrious personages, Dr. Coffin holds a distinguished rank. In the annals of medical reformation, he stands on a conspicuous elevation, and in point of real merit leads the van. More real happiness has been diffused to mankind by his system, than has been realised from a long train of benefactors in many preceding generations. He, too, has had, and still has, his opposers. The greater the benefits any benefactor has conferred on man, the more formidable has been the opposition that has hedged his way, the more malicious and implacable has been his persecutors.

It would be a vain attempt to enumerate all the benefits and extraordinary blessings devolving on the world through the instrumentality of Dr. Coffin's system of Botanic Medicine and practice; they are certainly innumerable. Where is that careless, unobserving character that is not alarmed and painfully concerned for his fellow beings? How many new and aggravated forms of disease are annually springing up in the world! What dreadful destruction is taking place among mankind! Hereditary forms of disease also predominate; they are entailed from sire to son, a frightful patrimony! Parental transgressions are visited upon the children to the third and fourth generation. What an alarming increase of consumptions, dyspepsia, cancerous sores, and scrofulous affections prevail! The arrows of disease fly in darkness, and the pestilence destroys multitudes at noon-day! What an abridgement of human life, compared with the former generations of men! As the influence of these varied forms of disease extend, human happiness is curtailed, sufferings and dangers are multiplied. Diseased bodies affect the minds of men: as the forms of disease are multiplied and the effects extended among men, in an exact ratio may we expect mental imperfection and imbecilities to arise. What a curse is entailed on man! Shall we stand idle and unconcerned spectators at the melancholy course of human affairs? Shall we see the world of mankind degenerating to the condition of the irrational animals that surround them, and not rise in the plenitude of our privileges and shake off the ignominious yoke that hangs upon the world?

What are the causes of all these calamities? becomes a momentous question: the next in importance is, What should be attempted to be done? We reply, that falsehood being the cause of so many calamities heaped upon the human race, the work to be done is to expose error and falsehood, and disseminate the truth with firm and fearless zeal. Truth is always simple: it is never fraught with mystery and darkness; it can stand the test of exposition and experience. Falsehood can never abide this kind of scrutiny: placed in the light, its native deformity stands exposed. This may serve as a rule or touchstone by which to try the works of reformers. Let us put impostors to the test by exposing all mystery-

makers, and all who show a disposition to hide their pretended knowledge from the minds of those who are as justly entitled to information as themselves. The clear rule of decision is to "judge of the tree by its fruit." These two rules will lead us to the discovery of the mischief-makers, teach us how successfully to oppose them, and put us on the road to a rational enjoyment of the blessings of life, and how to diffuse a munificent stream of benevolence on every hand. It is almost out of my power fully to expose the defects and ruinous consequences of the prevailing or fashionable medical practice. It may however be safely referred to the reflecting part of the community, who are already *measurably awake* to the subject. There is not a section of our country, however remote or small, but what is more or less infested by the awful malpractice of the regular medical faculty. It is unnecessary to enlarge on that point. Abler pens than mine have developed many of the secret machinations of the craft, and dragged many of the hidden things of darkness to the light of day. They have so far performed an important duty: I hope they will again and again appear in the field of battle, until universal victory shall be proclaimed. I shall confine myself, in the remainder of this article, to remark concisely and freely on the Medico-Botanic System of Dr. Coffin, and Dr. Coffin's competitors; I shall not set up as an improver or a reformer of his medical principles or practice. I could easily show the folly, intrigue and dishonesty of those who endeavour to impose upon the world by pompous words, which are, in fact, a tissue of plagiarism, who are justly entitled to the contempt of the community.

We have no longer need merely to theorise and reason from precarious data, to justify Dr. Coffin's system. We have facts, stubborn facts; we have experience, and an abundance of testimony, which cannot be disputed. When I think to analyse Dr. Coffin's system, to show its vast superiority over the host of competitors who have lifted up their heels against him, I scarcely know where to commence. It is so arranged, so systematised, so conglobulated into a magnificent whole, that it is not a task suited to moderate talents to dissect and disjoint it into detached and separate pieces. We cannot separate and examine understandingly any one part of the system without taking the whole connected in a chain as being one and indivisible. We cannot tell which to admire the most, the simplicity and efficacy of his remedies, or the originality and demonstration inherent in the principles that regulate his practices, in the administration of those remedies. Separate anything from his system, you impair its excellency and lose something of its efficacy. By a separation of parts, a measure of imperfection attaches to the whole. Keep all the parts together in the spirit and in the letter, and you have one of the most simple, complete, and efficient systems of medical practice, ever devised by human understanding.

It is simple, because plain and easy for common capacities to understand.

It is complete, because nothing essential is wanting, and nothing very important can be added without superfluity.

It is useful, in an extensive sense of the word.

It is useful, because of its simplicity: its simplicity makes it useful to all.

It is useful, because it is complete, and it is the more complete because it is simple.

Honesty.

THE DISCOVERIES OF BARON DE HALLER.

The next discovery of importance to that of the circulation of the blood by the immortal Harvey, was the cause of this motion of the vascular system by Baron De Haller, who found it to arise from the stimulus of blood acting upon the *irritable principle* of the fibre. This useful discovery, like the former, excited the venom of a long opposition; and although founded upon experiments, was alike disbelieved, and, when accredited, others were called in to participate in the honour.

Irritability.—Is one of the grand truths which is undeniably demonstrated; and posterity, which alone stamps the merit of discoveries, will promote this to that rank which its usefulness entitles it to. She will laugh when she observes that, after its opposers had failed in per-

suading us there was *no such thing*, they should endeavour to render the doctrine *odious*, by the consequence which they pretend naturally follows from it. She will be diverted to see physicians following the example of religious sectaries and devotees, interesting the cause of God with *theirs*, and accusing of *materialism* such as differ from them in opinion as to the pulsation of the heart and motion of the other organs. A certain author, well known for his great talents, and the bad use which he made of them, has endeavoured to draw this induction; but the illustrious De Haller, who was seriously affected at the imputation, has ably refuted the futility of such impious and absurd reasoning.

It is observable that the motion of the heart not only survives that of the organs of voluntary motion, but continues a considerable time after it is separated from the body, nay, after it has even ceased to palpitate; yet, as it still retains a latent power of contraction, its systole and diastole (the contraction and dilatation of the heart) may, by the application of stimuli, be alternately renewed and continued some time longer. Hence, in drowning or suffocation, though the pulse be imperceptible, and life apparently extinguished, yet the heart still preserves this latent power or susceptibility of motion; for though unable to propel the blood through the vascular system, yet it wants only to be generally excited by suitable stimuli to renew its action.

In the first rudiments of animal life, even before the brain is formed, palpitation points out the embryo heart in miniature, and marks its *primeval irritability* as a sure presage of vitality. The heart of the chick begins to move, before we dare presume that there is any organ for distributing the nervous power. The heart of the chick is seen beating while the body of the chick is but a rude, unformed and gelatinous mass.

As this singular organ exhibits irritability the first, so it never relinquishes it till the last, and may therefore be considered the *primum mobile* (the first mover) and *ultimum moriens* (the last in dying) of the animal machine.

In animals with cold blood the irritability is very great, and continues a long while: the heart of a *viper* will palpitate when taken from its body, twenty-four hours, and that of a *turtle* thirty or longer; and in animals whose blood is hot, it moves until the fat is rendered stiff by the cold, at which time the motions of the heart and all the other muscles commonly cease.

The celebrated Boerhaave acknowledges an active force in the heart, and a latent principle of motion in the pieces of it when cut, but nevertheless attributes this to the nerves, though the communication with the brain has been cut off.

Dr. Whytt followed the same path, but with this difference of expression—he uses the term irritability, and imputes it to the soul, which, feeling the impression of the irritation, occasions the contraction of the fibre: the soul therefore, with him, is divisible, and resides in every living part of the body. Accordingly, we find also in other books, "all motion is owing to the soul, which, being sensible of stimuli, contracts the fibres which are touched, and pulls them back to prevent their being injured." However simple this theory may be—and, like the doctrine of *phlogiston* among the chemists, however commodious for disembarrassing us from several difficulties—yet, as it is not in unison with the phenomena that are observed, it must be rejected. For, in the first place, the most *irritable* parts are those that are least sensible, and therefore not subject to the command of the soul, which ought to be quite the reverse if the soul was the principle of irritability. In the second place, irritability continues after death, and in parts quite separated from the body, and deprived of its communication with the brain; for there is nothing more common than to see the heart of a frog beat, and the muscles remain irritable, after the head has been taken off, and the spinal marrow removed. And, in the third place, it is generally allowed that the nerves are the organs and the brain the receptacle of all our sensations, the sources of all our ideas; but the nerves and the brain *are not irritable*, therefore *irritability* has nothing to do with sensation.

Muscles are composed of longitudinal fibres, which shorten themselves, and are so disposed that this contraction always

serves some wise purpose. They elegantly terminate in tendons, which are braced by sheaths; and though so numerous, each occupies its proper place and just direction. Colour was believed to be essential to the constitution of a muscle; but in fowls, in amphibious animals, in fishes, worms and insects, through all the gradations of animals of different species, the colour of the muscular fibre changes. In fishes and insects it is generally white; even in the human body it is not essentially red; the fibres of the iris and the muscular coats of the arteries, the muscles of the stomach, of the intestines and of the urinary bladder, are colourless. We cannot therefore define a muscle by that property which it often wants, but we may with the utmost propriety characterise it by its *contractile power*, the only true evidence of its nature, for the contraction of the iris proves it to be a muscle by truer marks than its colour; and, by the same rule, the muscles of a fish, or of the meanest insect, are as perfect as those of man. Such is the connection between muscles and their contractile force, or principle of *irritability*, that the moment it dies, all its astonishing power is gone, and the muscle which could lift a hundred pounds while *alive*, can bear the weight of but a few pounds when *dead*. Whereas, on the contrary, all those parts that are *irritable*, as the ligaments, tendons, &c., are capable of bearing the same weight, dead or alive.

The *irritable* or contractile power in muscles is the property by which muscles recede from certain stimuli without any feeling, without creating any consciousness of action; and so little dependent is it upon nerves, that it is found equally perfect in animals and plants which have no nerves, and remains in parts severed from the body to which they belong.

The polypus, according to John Hunter, is devoid of nerves. This irritability is so far independent of nerves, and so little connected with feeling, which is the province of the nerves, that upon stimulating any muscle by touching it with caustic, or irritating it with a sharp point, or driving the electric or galvanic spark through it, the muscle instantly contracts, although the nerve of that muscle be tied, although the nerve be cut so as to separate the muscle entirely from all connection with the system, although the muscle itself be separated from the body, although the creature upon which it is performed may have lost all sense of feeling, and have been long, to all appearance, dead. Thus, a muscle cut from the limb trembles and palpitates long after; the heart separated from the body, contracts when irritated; the bowels when torn from the body, continue their peristaltic motion, so as to roll upon the table, ceasing to answer to stimuli only when they themselves become actually dead. Even in vegetables, as in the sensitive plant, this contractile power lives; it is by this irritable principle that a cut muscle contracts, and leaves a gap; that a cut artery shrinks and retires into the flesh. Even when the body is dead to appearance, and the nervous power gone, this contractile power remains; so that if a body be placed in certain attitudes before it be cold, its muscles will contract, and it will be stiffened in that posture till the organisation yields and begins to be dissolved. Hence comes the distinction between the *irritability* of the muscles, and *sensibility* of nerves, for the *irritability* of the muscle survives the animal, as when it is active after death; survives the life of the part or the feeling of the whole system, as in palsy, where the vital motions continue entire and perfect, and where the muscles, though not obedient to the will, are subject to violent and irregular action; and it survives the connection with the rest of the system, as where animals very tenacious of life are cut into pieces. Whereas sensibility, the property of the nerves, gives the modifications of sense, as vision, hearing and the rest; gives also the general sense of pleasure and of pain, and thus the eye feels and the skin feels; but their appointed stimuli produce no motions in these parts: they are sensible, but not *irritable*. The heart, the intestines, and all the muscles of voluntary motion answer to stimuli with a quick and forcible contraction; and yet, they hardly feel the stimuli by which their contractions are produced, or at least they do not convey that feeling to the brain. Th re is no consciousness of present stimu us of those parts that are called into action

by the impulse of the nerves, and at the command of the will, so that the muscular parts have all the irritability of the system, with but little feeling, and that little owing to the nerves which enter their substance; while nerves have all the sensibility of the system, but no motion.

The nervous influence is a mere stimulus to the voluntary muscles, as blood to the heart and arteries, food to the stomach, or bile to the intestines. It loses its influence over the system sooner than the irritable principle in the fibre fails; for the irritable state of the muscle continues long after the voluntary motion or power of excitement from the nerves is gone, for when we die *slowly*, the irritable principle of the muscles is exhausted in the struggles of death. If, while in perfect health, we are killed by a sudden blow, the irritable power of the muscles survives the nervous system many hours or days, and the flesh trembles, and the absorbents continue to absorb; and often, as after suffocation, or drowning, we can, by operating upon the poor remains of life, restore the circulation, reanimate the nervous system, and recover that life which seemed to have entirely left the body; and thus the nervous influence which seemed to animate the system, and to be the prime mover and source of life, owes its restoration to that which was conceived to be but a secondary power.

There are some muscles which have a stronger contracting force than others, and retain it a longer time after the animal is dead. The chief of these is the diaphragm, which is always observed to move a long while after the others, when the animal is dead, or at least, by irritating the phrenic nerve which goes to that muscle, it could be renewed. "I have seen it," says Baron De Haller, "irritable, and tremble an hour or more after death, when the motion of the intestines had entirely ceased; and many others have witnessed the same along with me."

The œsophagus, or gullet, when irritated, contracts itself very sensibly, and I have plainly seen its peristaltic motions after death, so that a morsel thrust into it, will be pushed upwards and downwards by the peristaltic motion excited by that stimulus. The gullet is composed both of longitudinal and circular fibres, but chiefly circular, abundantly more so than in the intestines, because this has no foreign power to assist it, and because it is necessary that food should make a shorter stay here than there. Hence it is that horses drink against the law of gravity.

The stomach is considerably irritable, and when touched with a corrosive, becomes immediately furrowed. If you irritate it with a knife, either at the pylorus or elsewhere, it presently contracts itself, and when wounded, the borders of the wound retract. You may see the motions of the stomach through the tendinous part of the diaphragm after it has been laid bare, as also shining through the peritoneum while the abdomen is entire. We, therefore, cannot doubt for an instant that this organ is irritable. The intestines, both large and small, are extremely irritable. When the intestine is only slightly cut, the wound equally retracts its edges; but if cut quite through, these curl themselves back so as to embrace the parts above, or, in other words, they turn inside out.

When a part of the intestine only is irritated, it contracts so strongly there that the cavity is quite closed, and the contents are pushed into the neighbouring parts, either upwards or downwards, which dilate, and soon afterwards being irritated by their contents, they contract and push along whatever is contained. Very often after the motions of the intestines have ceased, they are again renewed, and increased by little and little by some obscure cause which restores the irritability. After they have been taken out of the body, I have observed, continues Baron De Haller, this motion rather to increase. They may be irritated externally, either with a knife, a needle, alcohol, or corrosive; but their internal surface is much more irritable.

A Plea For Marriage.—That the relation of marriage is the more natural condition of man, and, in the main, promotes happiness and long life, is demonstrated in the double fact, that unmarried adults do not live as long as an equal number of married people, and that there are more insane single persons in our asylums, in proportion, than married.—*Journal of Health.*

LOBELIA—A DEADLY POISON?

To the Editor of the Botanical Journal.

Dear Sir,—Much has been said, pro and con, relative to the properties and virtues of Lobelia, the faculty maintaining that it is an arrant poison, and as such described by all their standard authorities, and as duly quoted by every disciple of the old practice. It admits of no question, that great ignorance prevails amongst the faculty, in respect of the properties, virtues, and action of this much belied herb. Upon no other conclusion can you understand the conduct of educated men, or account for the conclusions they arrive at. In connexion with this subject, I desire to call your attention to a case which will probably tend to allay any feeling of alarm which may pervade the minds of some of your readers in respect of taking Lobelia; and as the case is one of importance, I shall not use any concealment of names or residence. In February, 1857, Mr. J. Burton, a merchant of this town, was brought under my care. He was at that time truly "dead-alive;" he was thin, weak, and in colour like a person suffering from jaundice; appetite gone, sleepless nights and restless days, had been his portion for many weary months; he had been under the care of our best physicians, and they had done for him all they could or their system would, yet he was fast hastening to that "bourne from whence no traveller e'er returns." I found him labouring under an accumulation of disease: in fact he was the spectre of what he had been. I took vigorous measures, and after a thorough examination of his system, I found that Lobelia would have to be the pioneer, and that without it I could make no impression upon the enemy. To work then I proceeded, and the first emetic I gave him was no small amount; by the faculty calculations sufficient to poison a dozen persons. Three ounces of tincture of Lobelia was the amount I gave him, before I had effected my object. I gave him *three emetics each week for two months*, and since then, one now and then; half an ounce will now effect what in the first instance could not be done with less than three ounces; in fact, as Mr. B. sometimes observes, the sight of Lobelia will now almost pump him. Well, sir, Mr. B. is now *strong*, healthy and VIGOROUS, can eat like a Yorkshireman, and "sleep like a top," and yet he is not poisoned, though, if the theory of a Letheby is to be relied upon, he took what would have poisoned a whole army. Human wisdom is but folly—facts every day prove the truth of yesterday but to have been error. May this plain statement serve to allay any feeling of apprehension which may pervade the bosom of the timid in our ranks!

I am sir, yours obediently,

Edward Clayton.

Huddersfield, January 30, 1858.

CURE OF SEVERE INFLAMMATION OF THE EYES.

TO DR. COFFIN.

Sir,—I think it my duty to you, and for the sake of others, to send you the particulars of my cure by your system. In May, 1855, till then in robust health, I took a severe inflammation in my eyes, for which I had advice till the following August. Daily getting worse, I consulted other and eminent physicians, who said, that as my case required special attention, my only chance was to go into the infirmary. I lay there, in a dark room, for five weeks, being treated with every care, and having the best advice this University city could afford. I was then dismissed; being told to go to the country, to get up my strength, as I was a mere shell, and could not then stand any more physic. Unable to walk home alone, I was guided thither; and after remaining some time, I next attended at the Eye Infirmary; from which, after a consultation of many doctors, I received medicine, being cautioned not to exceed the prescribed drop in a glass of water, lest I should "kick up my heels." I was now incapable of recognising those whom I consulted, and, in addition, was troubled with pains and swellings in various parts of my body. I had ultimately completely lost the sight of one eye, and for many months given up all hope of recovery, when, by God's intervention, I was recommended to try *your* system. After taking the medicines for a fortnight, I had sufficiently recovered to be able to read in a newspaper. Persevering steadily, I was gradually restored

to my former health, which I have since enjoyed; excepting a few casual ailments in which I have found your remedies, as prescribed in the "Guide to Health," speedily successful. With all gratitude, as the means under God of restoring me,

I am, sir,

Your humble servant,

M. McPHAIL.

57, *West Bothwell-place, Glasgow,*
January 18*th*, 1858.

P.S.—I shall be glad to answer inquiries from similar sufferers, as

"Facts are chiels that winna ding,"

and I wish all knew, as well as I do now, the great superiority of your system. Though I have told my tale as simply as possible, Heaven only knows my feelings on again recovering my sight.

THE FIREFLIES OF SIAM.—They glance like shooting stars, but brighter and lovelier, through the air, as soon as the sun is set. Their light is intense, and beautiful in colour as it is brilliant in splendour, now shining, anon extinguished. They have their favourite trees, round which they sport in countless multitudes, and produce a magnificent and living illumination; their light blazes and is extinguished by a common sympathy. At one moment every leaf and branch appears decorated with diamond-like fire; and soon there is darkness, to be again succeeded by flashes from innumerable lamps, which whirl about in rapid agitation. If stars be the poetry of heaven, earth has nothing more poetic than the tropical firefly. —*Sir J. Bowring.*

NOTICES.

UPON a careful consideration of our series of drawings of herbs, we have determined to make them of their natural size, and not upon an enlarged scale. We shall thereby place them within the reach of all.

They are therefore drawn upon paper of the following size, namely, 21 inches by 15 inches, and the prices are as follows:

	£	*s.*	*d.*
A single drawing varnished, and mounted on mouldings	0	2	6
One set of ten of any of our medical herbs drawn to order, varnished, and mounted on mouldings	1	0	0

Dr. COFFIN may be consulted gratis, as usual, every Saturday evening, from four to eight o'clock, at the Botanic Establishment, No. 24, Union-street, East, Spitalfields. *Patients not admitted to the waiting-room after eight o'clock.*

Dr. COFFIN may also be consulted at his residence, 24, Montague Place, Russell-square, daily *(Sundays excepted)*, from one to two o'clock (fee one guinea), on any day except Monday, on which day the fee will be five shillings only.

Advice gratis, every morning, from ten to one o'clock, at the establishment, No. 134, High Holborn, nine doors from New Oxford-street, nearly opposite the London and Westminster Bank, Bloomsbury Branch.

FORD'S
CELEBRATED TRICOPHEROUS.

The best-approved application for cleansing, beautifying, preserving and reviving the hair. It should be used by all persons recovering from fever, or any other illness, as it restores the tone of the cutical secretions, and gives a healthiness to the hair and skin.

Sold at W. B. FORD'S Establishments, 134, High Holborn, and 24, Union Street East, Spitalfields, in four-ounce bottles, at 1*s.* 3*d.* each.

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Keeps constantly on hand all the Remedies used in Dr. COFFIN'S Practice; also Dr. COFFIN'S "Guide to Health," "Treatise on Midwifery," "Treatise on the Generative Organs," "A Course of Twelve Lectures," and "Botanical Journal."

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Visits to Patients, 2*s.* 6*d.*, in advance.

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Surgeon and Practitioner of Medical Botany, Proprietor of the Botanic Dispensary,

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SUBSCRIPTIONS
FOR THE BOTANIC HOSPITAL.

A Friend £3 3 0

NOTICES TO CORRESPONDENTS.

In answer to a Correspondent's letter concerning the culture of Lobelia Inflata, we state that it requires to be sown in loam and reared in a greenhouse for the first year; then, when the warm weather of the next year comes, it may be transplanted to the warmest aspect.

Our Coloured Print will be published with the next number of the Botanical Journal, which will contain a description of the same.

The Botanical Journal and Medical Reformer is published Fortnightly, at No. 134, High Holborn, London, where all orders must be addressed.

COFFIN'S
BOTANICAL JOURNAL
AND
MEDICAL REFORMER.

"Human experience, which is constantly contradicting theory, is the great test of truth"—Dr. Johnson.

No. 255—Vol. VIII. SATURDAY, FEBRUARY 20, 1858. Price 1d.

THE GLEANER, No. 7.

ON BLOOD-LETTING.

The propriety of letting blood on all and every trivial occasion is now being questioned by many of the faculty themselves. Much has been recently written in the *Lancet*, pro and con, and our little Journal has also (by the Editor) taken up the subject; but we think that a *whole* is required to explain truly and simply, particularly to those who are not so far advanced in our theory of disease, and its remedies. We therefore ask, Can the practice of bleeding for the cure of general and local fevers be sustained upon the testimony of correct pathology, sound physiology, careful observation and true experience? In order that a person may be qualified to gain a correct decision, in regard to the merits of this question, it is indispensable that he should have a true knowledge of the nature of disease, of the general doctrine of life, and of the nature and uses of the blood; that he should mark well what he *sees* and *feels* of disease, and that he should not be one of those who are determined to be ignorant in *spite of experience.*

Our theory or doctrine of disease, fever and inflammation, we have given in our "Guide to Health," and our published lectures, with which many of our readers are conversant. These doctrines were given in accordance with the best of our judgment and knowledge; therefore, in framing our answer to the question at the beginning of this number, we shall apply the question to these doctrines as a test, and give our answer according to the result. Any mode of practice in the treatment of fever which harmonises with true pathology, with physiology and experience, must be regarded as good according to our present state of knowledge; if, then, the practice of bleeding is not found to be so parallel with the steps of nature in the cure of disease, as some other known and practical means, then we must pronounce it bad. We have before said, that there are many remote causes which may operate upon the human system, under certain circumstances, in such manner as to derange that regular performance of all the functions of the body; which derangement brings on a preternatural state of the body, or a diseased state. A diseased state of body cannot long continue without giving rise to certain exertions of nature, which are commonly termed fever, and looked upon as *real* disease, but which are called by Dr. Johnson, "a salutary action, or an effort of the constitution;" by Mr. Hunter, "a necessary action, a *good symptom;*" by Dr. Gregory, "the operations of nature tending to the restoration of health, the steps of nature in curing disease." We have before stated that all the actions of the system (morbid or diseased actions excepted) are supported by the life-giving stimulus of the blood. We have now arrived at the conclusion, that disease is the immediate cause of fever; that fever is a necessary and salutary action, and that this action is supported by the blood. We must inquire into the immediate and subsequent effects of bleeding, to see whether they are such as may be desired in the removal of disease. The immediate effect

of the abstraction of blood is debility and weakness. This is a fact which all experience proves, nor can it be successfully controverted. The secondary effect of bleeding is a protracted recovery from disease; also an increased susceptibility of the system to be affected by such causes as are calculated to produce disease. The first of the above opinions is based, not only on experience, but upon the physiological fact, that all the strength of the system is derived directly from the blood; and hence, to pretend that a small quantity of blood may be abstracted without producing a *proportionate* degree of weakness, would be as good philosophy as to say, that one grain of mustard-seed makes no part of the bushel; or to say, that the body contains one, two, or three pounds of blood more than is compatible or proper for its safety or health; to say, that nature performs work of supererogation to interrupt her own laws. Such opinions would do but little honour to men of sense. Bleeding reduces the force and frequency of the pulse; that is, it diminishes the action of the heart and arteries, and thus reduces fever.

"Well," says one, "if bleeding reduces fever, it must be good." But stop: what is fever? Oh! we had forgotten that we had quoted, in the early part of this number, that "fever is a necessary and salutary effort of the constitution" to relieve some oppressed organ, to restore some impeded function, to remove disease. Well, then, bleeding is not good, simply because it reduces fever. "But does not bleeding remove the blood which is most impure, and which is consequently a cause of disease?" We are fully aware that many are honestly of this opinion; but whenever we find a *physician* holding out such an idea to the people, we are obliged to lay one of two things to his charge; viz., that he is unpardonably ignorant of the true knowledge of his profession, or else he is wilfully dishonest, or, in other words, is willing to sacrifice the health of the patient to his own interest. Foreign or extraneous matter is only mixed mechanically with the blood, not chemically combined with it. When the secretory functions are suppressed, as that of the kidneys and skin, that matter or fluid which should have passed off by these secretions is retained, mixed with the general mass of the blood, and produces unusual irritation. The proper way to purify the blood in such case seems to be the way which nature takes; that is, to restore the action of the skin, thus producing perspiration; and the action of the kidneys, thereby separating more of the unhealthy particles from the blood. Now we will suppose that there are twenty-eight pounds of blood in the body, and with this is mixed four pounds of impure fluid from retention; now we take one pound of blood, and we remove but one twenty-eighth part of the morbid matter, at the same time taking away one twenty-eighth part of that strength, of which the patient may stand in the greatest need. "But," says one, "the doctor says it is the bad blood which he draws, and I think he is correct; for, on watching the operation of bleeding, I have noticed that where the blood first begins to flow it is quite thick, and looks dark and clotted." All this may be true, and frequently is, as respects the appearance of the blood; but let us look into the cause. It is necessary, previous to opening a vein, to apply a ligature around the limb, between the point to be punctured and the heart, for the purpose of abstracting the blood in the veins, and thus rendering the vein to be opened more conspicuous and prominent. The blood contained in the veins on the side of the ligature more distant from the heart, by being obstructed, loses its colouring matter, by uniting with a larger quantity of the carbon of the animal substance; hence it becomes darker, and, by its quiescence, partially coagulates, and forms small clots. Therefore, when the blood begins to flow, upon the opening of the vein, it looks dark; but after it has flowed sufficiently long to remove that portion which has been retarded by the ligature, it appears of a brighter red, no clots are discovered, and all conclude that the bad blood is drawn off, and consequently it is time to stop. Yes, we agree with them, it is *time to stop*—to stop such absurdities, such impositions and such sacrifice of life! If the blood abstracted by venesection differs at all from the general mass of blood, we would be led, from certain circumstances,

to believe that it is the *better* portion of the blood. It is well known to physicians that in many diseases there are very frequently determinations and congestions of blood in different organs, as the brain, the lungs, the liver, &c.; of course the congested or stagnant blood ceases to give that stimulus and strength to the system which is usually imparted by this fluid. Then the only dependance which the constitution has for its strength to support life, and to make the necessary efforts to remove disease, must be solely derived from the circulating and vivifying blood; it is the blood which is in active circulation (except the obstruction caused by the ligature) that is drawn by venesection; hence, according to the reasoning above, it must be a portion of the blood of the better quality that is drawn off by the *lancet*. Though bleeding, when it is performed during increased action of the heart and arteries, invariably reduces this action for the time, yet it is known to have a different effect if performed at the time when the action of the heart is below par, from the oppression of the general disease, concussion of the brain, suffocation from gases, &c. In these cases, bleeding increases the action of the heart and arteries by accelerating the febrile action, or forwarding the process of a reaction.

"Well, then," says the believer in bleeding, "you have established the propriety of blood-letting in this state of the system, upon your own principles, for you say here, that bleeding increases the action of the heart and arteries, when performed under the above-described circumstances; you say also, that it accelerates the accession of the febrile action, or forwards the process of reaction; you have said that this febrile action or reaction is a necessary and salutary effort of the constitution, tending to the restoration of health! Now, agreeably to all this, it seems to me that bleeding must be good; for, if the fever is a salutary action, tending to remove disease, it cannot come on too soon, when there is disease existing in the system, the sooner it commences the sooner the restoration of health will be accomplished." Now we look upon this kind of reasoning, as arising from a very superficial examination of the subject, and under no other examination of it could such a series of reasoning appear, even in the slightest degree, plausible. We have again and again observed, that all diseases consist either in functional or organic derangement, and that their immediate consequence upon the system is oppression of its organs and depression of its general strength. We will here also remark that a natural fever or reaction, on the account of the existence of disease, does not take place until the disease is so extended as to endanger the immediate safety of the individual affected; that is, fever does not take place so long as there is sufficient strength and vital stamina in the constitution to bear up under the oppressive influence of disease. Hence, the interval between the primary application of an efficient morbid cause to the body, and the commencement of the reaction of fever, designed to remove the effect produced in the body by the operation of the external morbid cause, will be longer or shorter in proportion to the extent or intensity of the cause itself, and the strength of the system at the time. Nature, suffered to take her own course, always starts at the best time and under the most favourable circumstances. To illustrate our idea, we will suppose an individual to receive a fall from some considerable eminence, in which he strikes upon his feet in such a manner as to produce no external wound, but, as soon as he comes to the ground, he falls apparently dead. This is a case of concussion of the brain; that is, the brain is so much jarred by the fall as to cease in a measure to perform its usual function; the equilibrium of the circulation is disturbed, a congestion of blood takes place in the brain, and perhaps in some other of the internal organs. Now, though this is very oppressive to the system, yet, from the vigour of the constitution, the system is enabled to bear it, and still perform the vital functions sufficiently to support life, till nature shall have prepared her means, so as to make her efforts of restoration under the most favourable circumstances; but if bleeding be resorted to, a degree of debility is thereby in-

duced, which incapacitates the system for the endurance of the derangement, till all would (except for the bleeding) have been in readiness for the work of reaction. Thus we find by bleeding we give rise to the necessity of a premature accession of fever; we also diminish the strength of the constitutional efforts of fever, and, at the same time, add to the strength of the disease. If it is not the vital energy of the system which stays the ravages of disease, we know of no property in animal matter from which disease can meet with any resistance.

24, *Montague-place, Russell-square.*

(To be continued.)

MEDICAL SCIENCE AND MEDICAL QUACKERY.

It is a source of gratification to us when men of mind, intellect and thought divest themselves of scientific mystery and technicalities, and come boldly and gratuitously forward to instruct their fellow creatures whom, by position and other circumstances, are precluded from devoting the necessary time to the attainment of knowledge. This has been done by Mr. George More, surgeon, who recently gave a lecture in the Working Men's Institute, at Hartlepool, which was replete with the plain and simple yet glorious truths advocated and enforced by Dr. Coffin, both in his Medico-Botanic System and his various publications, and is another among the innumerable proofs involuntarily accorded and voluntarily asserted by the majority of sound-thinking men who now and then fearlessly come forward, and throw off the shackles of custom, mystery and allopathic practice with which they were trammelled, the fallacy of which they have discovered, and stand thus unfettered, the advocates of all that we advocate—of all upon which our system is based (namely), the knowledge of cause and effect as the proper and only basis of medical practice, searching for and discovering the cause of disease, removing that, and finding as a natural consequence, that the disease, alias the effect, inevitably ceases.

Like us, Mr. More decries the abominable quack pills so much advertised (some of which we have proved contain mercury), with all the falsehoods connected with them as well as the stultified credulity of those who take them. Like us, he exposes the shameless tricks of the vagabonds going about the country, practising upon the ignorance of the masses, and obtaining money by false pretences. (Pity some spirited parties do not take some of these flagrant cases in hand, and prosecute some of those artful and heartless miscreants, whose only aim is to obtain the money of their dupes.)

Mr. More's concluding observations are really so good, and so much to the purpose, that we are sure they will be read with interest and gain our excuse for inserting them, for like us, too, he makes no hesitation in exposing the quackery of many who are considered scientific men in the allopathic system; "men who disgrace science by deception, presumption, self-assertion, and that kind of puffing commonly known as 'blowing your own trumpet,' who use unfair and knavish means to make themselves appear great men in the sight of their fellow creatures. Such individuals cannot be blamed too severely; for they sin against light and knowledge, and are as bad, nay worse, than the arrant impostor who has at least, ignorance for his excuse. Now quackery and pretension arise from, and prey upon, ignorance—ignorance of the works and designs of the Almighty and of His laws. What then is the cure for the state of things I have been speaking of? The diffusion of scientific and general knowledge — the teaching of Nature's laws. The formation of learned classes of society is the means to elevate and preserve all classes. Men who are the most liberally gifted with ability to esteem the great facts of existence, to observe them and draw conclusions from them, are always the most honest in their motives. Such men are the great promoters of civilisation, of liberty, and of truth. They diffuse knowledge by the free communication of their ideas; and by forming learned societies and classes for mutual improvement, they make themselves the natural and necessary enemies of knavery, ignorance, and quackery, in whatever shape they may present themselves. Scientific minds are not content with solitary intelligence, but endeavour

to combine the knowledge possessed by others with their own, so as to form a science which rests on evidences equally open and plain to all minds that equally observe them. Let men who think they discover any advantages in any peculiar system bring their facts to the common stock, that they may be tested and properly examined, and that their right value may be put upon them, instead of keeping them to themselves and setting a value upon them according to their own partiality. Scientific men have learned and are learning a great deal from hydropathy, homœopathy, mesmerism, and all the other systems which exist now or ever have existed. They pick the plums out of the pudding; they separate the valuable ore from the worthless dross. It is a great comfort to philanthropic minds to know that homœopathic medicines cannot poison, even by mistake, and that no one ever has or ever will resort to them for the purpose of committing murder or suicide: in fact, they do nothing but act on the faith or fancy. Yet from homœopathy, spite of all its pretension and nonsense, we learn this much: never to thwart nature in her efforts to cure disease, and, above all, it shows us the wisdom of avoiding violent reactions. From hydropathy and the 'movement cure' we may learn a great deal that is exceedingly valuable and important. I must say I admire the ideas on which these systems are founded, although I must protest against the immense amount of humbug connected with them. They teach us the special importance of bathing, fresh air, well regulated diet, cold water, and healthy exercise. There is no doubt that attention to these things will cure many of those maladies so abundantly produced among the idlers of fashion and the slaves of business. The mesmerists, too, are doing good service to science, by directing attention to means and influences beyond the apothecary's shop; and if they succeed, at last, in proving that the cure of disease is often accomplished by diverting the mind from its bad habits, yet this much is worth all the delusion and folly with which it is accompanied. It is our duty to deal very tenderly with each other's honest convictions, while at the same time every right-minded, scientific man ought boldly to express what he believes to be useful as well as true. Right purpose is honest and noble. It does not trumpet its merits for the sake of pay or popularity, but presents them where they may be proved. Let all those who take up new notions—be they what they may, I care not—let all such, I say, subject their notions and statements to fair trial by men able to judge of their worth and honest and straightforward in their search after truth, and, depend upon it, if there is anything in them, it will be acknowledged and their triumph will be complete. The Almighty has given us minds and means. It is manifestly our duty so to train our minds as to be able to find out and use those means aright for the lessening and alleviation of the sufferings and miseries of our race. We ought not to be drawn away from usefulness by fancies and notions, but we should endeavour to become acquainted with useful facts; we should then not live in vain. Every honest man should devote himself to the propagation of truth; he should boldly proclaim himself the enemy of every form of knavery and deceit, the foe of all kinds of unreasonable folly and ignorant stupidity; he should use all his efforts to advance knowledge and make the dark mind light. Despots, civil and religious, may rail at and oppose the education of the people—ay, and dread it too; but, depend upon it, many social blessings would follow increased social enlightenment. Pestilential diseases, the more debasing vices, drunkenness, beggary, and pauperism, would at any rate be greatly diminished, and imposture would hide its brazen head, scouted by the well merited contempt of truth-loving, intelligent men. Let us then be up and doing! Encourage those institutions which have for their object the education of the uneducated. Working men, help yourselves, too. Don't trust too much to those who are better off or who hold a different social standing to your own—rely upon it they have pretty nearly enough to do to look after themselves—but put your own shoulders to the wheel with a will. Make up your minds, not only to get knowledge,

but to apply it usefully, and you will not only edify and raise yourselves, but you will elevate your age and generation, and ages and generations yet to come. All should apply themselves, high and low, rich and poor: it is a duty they owe to their race, to humanity; it is only paying a debt, for how much we owe to those who have gone before us, who have learnt and taught, who have heroically struggled against difficulties, fought their way through prejudice and opposition, and maintained tremendous battles with deceit and ignorance, to leave to us their knowledge, and to elevate us to the mental position we now occupy! And shall we not pay this debt, by striving in like manner for the good of our fellow-creatures now living and yet to come? It is every honest man's duty to speak and act the truth to the best of his knowledge and ability, and, therefore, I have said what I have said to-night, while I have tried to avoid what might give offence. Believe me, I am no bigot, but am open to credit anything that right reason and experience have proved to be true and useful. Let us, then, avoid and oppose deception and lies; but let us strive earnestly to gather and apply useful knowledge, with simplicity and truth, and, by so doing, we shall be of some service to our diseased and suffering fellow mortals."

PICTORIAL ILLUSTRATIONS OF MEDICAL BOTANY.

GROUND-IVY—(HEDERA TERRESTRIS.)

DESCRIPTION.—Ground-ivy creeps and spreads along the ground, shooting forth roots at the corners of tender, jointed stalks, which are hollow, square, and set with two round leaves at intervals; it grows about a foot high; root consisting of small fibres.

PLACE.—Under hedges, the sides of ditches, in shady lanes and waste ground.

FLOWERS.—Set in whorls and of a purple colour, similar in form to the nettle, but much smaller.

TIME.—It flowers early, continuing a long time; the leaves continue green all the year round, except the winter be very severe.

QUALITIES.—An excellent herb for all inward wounds, ulcerated lungs or other parts; it eases pains and windy, coleric humours in the stomach and abdomen; it is good in jaundice, acts upon the kidneys, and is very useful in indigestion, combined with camomile or green yarrow. It makes one of the best poultices for a tumour, gathering, or sore of any kind that can be made.

ANATOMICAL AND BOTANICAL DRAWINGS.

MR. EDITOR,—Sir,—It gives me much pleasure to inform you that I am much pleased with my set of diagrams of the human subject, five in number, as described in the "Botanical Journal, No. 252." They are just what I have long desired, but have not been able to get at anything like the price you are charging for them. I have got them neatly framed, at a cost of seven shillings and six pence each, and I assure you, that my anticipations of their *usefulness*, besides being very appropriate decorations, have already been realised. I should advise every agent to have a set, and if I were not persuaded that each one, under present circumstances, can see the advantage to be derived from them, I would give illustrations of their usefulness. Please send me the plates of herbs, as ordered, with my next goods.

I am, sir, yours truly,

THOMAS FEREDAY,

Brierley Hill.

REMARKS ON ALLOPATHIC PRACTICE.

MR. EDITOR,—I have frequently given it as my opinion, that the medical practice too often, much too often, pursued is not calculated, nor can I scarcely believe it to be designed, to cure, but rather to prolong disease. Like some complicated machinery, one dose of medicine makes way for another, and that for a third, and so on, as long as life endures.

Let us examine the facts in relation to the genuine character of our prevailing practical custom: suppose, for instance, we take a strong, healthy, vigorous, active man in the prime of life; we put him to bed, call him a sick man, or rather we treat him as such, take a pint

GROUND IVY.

or quart of blood, give him a dose of tartar emetic, then a heavy dose of calomel, say twenty or thirty grains, perhaps twice that quantity, then apply a blister ten inches square over the stomach or breast, and another the same size between his shoulders, others four inches square to each wrist and ankle, give a heavy dose of Dover's powders, and rub mercurial ointment on his skin until he becomes as black as an African, feed him merely on one pint of weak gruel in twenty-four hours, continue the calomel and bleeding regularly for four days, with broken doses of four or five grains of calomel, and an equal quantity of Dover's powders every three or four hours, and once or twice a day a dose of tincture of foxglove, with a little laudanum at night to compose the patient, and *force* sleep on his tortured system—say, reader, what do you seriously think would be that man's situation? This does not exceed what the regular faculty would account a prompt and efficient practice in desperate cases of inflammatory bilious fever — we can easily cite cases equally absurd. Well serve the *well man*, in this way, what would be the consequence? If not dead, he certainly would be greatly debilitated, his situation must inevitably be very distressing, and in all probability, in a vast proportion of cases, should we treat them in the same way, we should find them past all probability of recovery.

We frequently hear of a similar course of treatment among the sick, and death is constantly treading upon the heels of such practice; the doctor excuses himself by saying, the disease changed type; yes, and no wonder; a natural disease has been changed to an artificial and incurable malady. Such management we should presume sufficient to change anything that is changeable, from bad to worse; but the veil is commonly cast over the family and friends. A few Latin phrases, or technical terms, an oblique glance at some anatomical subject not always relative to the case, conceals the root of the mischief. The physician is accounted a very learned man; marches off with all the honours of the mercurial warfare against reason and common sense; a heavy bill of charges is preferred against the estate or friends of the deceased; and here generally ends the matter.

No wonder, if you begin to inquire why such a state of things be allowed to exist in this enlightened age and country. The answer is, habit has made such a course popular. A few wealthy, ambitious and popular families take the lead in regulating our habits and customs. This monopolising party, this aristocracy, have found protection under certain laws. The learned faculty are specially provided for; a deep veil of ignorance is spread like a wide curtain round society at large; the friends of humanity are liable to fines and imprisonments, when practising, and receiving compensation, without a regular license. Thus the regular faculty are striving to take from the people the key of knowledge, and to hold the keys of death in their own hands. This they have done for a long season, without the special aid of the civil law; and now they aspire to snatch the key of life from the hands of the people.

A great proportion of the world are fond of flattery, and swallow deception as they do the poisons of the shops; these things, together with false statements and misrepresentations, have had a very natural tendency to hold back or check the reformation in medical practice. It is in this way that the grossest impositions are supported that were ever practised on the human race, and in the darkest ages of the world.

Perhaps, Mr. Editor, it may be thought by some of your readers, that I am too severe in my animadversions: if so, refer them to an eminent professor. "Dissections," says the learned doctor, "daily convince us of our ignorance of the seats of disease, and cause us to blush at our prescriptions. What mischief have we done under the belief of false facts and false theories! we have assisted in multiplying diseases; we have done more—WE HAVE INCREASED THEIR MORTALITY."

Such language as this, coming from one of the most distinguished heads of the department of medical science, is sufficient to condemn the whole round of mineral practice, and ought to consign it to oblivion. But, as I have before observed, these deadly poisons are valuable remedies in skilful hands—but valuable

ONLY to the law-protected faculty, at the expense of the health and lives of the community. It is the lucrative sales made of these poisons that constitute their real value, and not their utility in removing disease.

THE USE OF PURE WATER.

(Continued from page 180.)

WHENEVER you go near to a manure heap, or an open cesspool, do you not observe that an unpleasant smell arises from it? Often this smell is so strong that it at once drives you away. Now, this disagreeable smell is a constant accompaniment of the poison-vapours of putrefaction. It is, indeed, attached to them for the most merciful of reasons; namely, that men may have timely notice of the danger that is lurking near. It is like the rattle of the rattlesnake, having been made sensible to the nose, instead of to the ear.

Men ought always to avoid the threatening smells of putrefaction, as carefully as they do the threatening sounds of the rattlesnake. Disagreeable smells are indications of the presence of danger. Never allow them to remain in or near to your dwelling. Never rest for a minute when you perceive them. Hunt them away from your homes, as you would the most venomous reptile that crawls.

When people live in the open country, there is not quite so much need for drains and sewers as there is in the case of towns, because there are by no means so many individuals crowded together in a given space; and because, also, it is then always easy to take waste substances away at once, and deposit them at some distance from the house, where there are no living creatures to breathe the poison-vapours which steam off from them during their decay.

Still, even in the open country, it is absolutely necessary that decaying matters shall be removed from the neighbourhood of dwellings. If they are cast out just before the doors and windows, and left there, the poison-vapours that they breed rush into the house every time those doors and windows are opened; and if there be a fire burning within, are sucked in continuously, through chinks and crevices, in the place of pure air.

I chance to know a large parish in the open country, in which there are not more than a thousand people, living in a space some two miles square. The land itself is a high, flat heath, over which the wind sweeps with the greatest freedom. But there are now upon it rich fields, full of grass, and corn, and sweet clover, and green turnips. A pleasant stream of pure water runs through the parish one way, and a broad turnpike road crosses it the other. Near to a handsome church, standing upon the top of a gentle hill, there is a house surrounded by a lawn, over which two fine old chestnut-trees extend their seared branches through masses of young foliage; and in this house there lives a clergyman, who thinks of the bodies of his flock as well as their souls, and does all he can to show his parishioners how to value rightly the substantial blessings God has given them. Nature, indeed, seems to have furnished to this place every advantage that is needed for the preservation of health.

But, unfortunately, the cottagers in this parish have taken a perverse fancy into their heads, to make pits close to their doors and windows, into which they throw all the waste and refuse substances of their houses, leaving them to decay and putrefy there as manure. They have, generally, small gardens round their dwellings, but they dig the manure-pits close to their doors, so that they may not have to walk a few yards further when they have anything to throw in. Very often, too, there are pigsties, and even stables for donkeys and ponies, by the sides of the manure-pits. The immediate consequence of all this is, that when any one walks in among these cottages, he finds his nose offended directly by all kinds of foul smells. The people themselves get so used to these smells that they do not appear to mind them. Sometimes, indeed, they seem to have been trained by custom rather to like them than otherwise.

But there is also another consequence which follows in the company of these smells: the parish is, commonly, not free from infectious fever, for months at a time. I have seen this horrible disease again and again stalk slowly through the parish, occupying months, and even years, by its progress; passing by clean and

well kept cottages, but stopping at every one where there were manure-pits and pigsties, and seizing from them victims, sometimes two and three, and sometimes more. I have known the fever to cling for months to the same dwelling, until manure-pits close by were removed, either from their owners being at length convinced of their hurtfulness, or because the clergyman or the parish and medical officers interfered; and I have then been an eyewitness to the fact, that the sick people almost directly got out of their beds, and in a few days became quite well. I have known as many as twenty people die in the course of two months, in one small spot, in the parish where the holders of the houses were obstinate, and refused to part with their manure-pits. I remember a cottage, in particular, in which a labourer lived with his wife and five children. I went into this cottage one hot autumnal afternoon, when there was fever prowling near, to tell the poor man that his cottage was not fit even for a dog or a pig to reside in, on account of the foul matters that were collected, both in front and behind. Three weeks afterwards I was in the house again. The man was then away, in the fields, at his work; but his wife and four children were sick in bed, in two little, close, and badly ventilated chambers; the fifth child, a young girl, being alone left to nurse them. In two more weeks I was there once more; the girl who had been the nurse was then herself ill in bed with the fever, and she and her father were all that remained of the family of seven. Her mother and four brothers and sisters were all asleep beneath the sod of the churchyard. This sad instance I witnessed myself, but it is very far from being a solitary one, in this great country, which ought to be so free from sickness, favoured as it is by Providence in all that gives value to life. Thousands upon thousands of people die in England, in the same way, every year, poisoned through their own folly and ignorance.

Cases of this kind prove, that although the danger is less in open and thinly peopled country places, than it is in crowded towns, there is, nevertheless, great reason why even there pure water and fresh air should be allowed to perform their proper work of removing waste substance, and destroying poison-vapours. If you have any country friends with whom you can talk these matters over, tell them that the best thing they can do in order to escape entirely from the risk of such deadly sickness as infectious fever, is always to carry all waste and refuse substances to some distance from the house, every day and bury them there beneath the loose soil, mixed with a little quick lime, if they can procure it; then the poison-vapours, instead of being steamed out into the air, are sucked in and fixed by the soil and the lime as fast as they are formed, until the rain comes to wash them away, through rivulets and rivers to the sea, or to convey them to the rootlets of living plants which are able at once to consume them; changing them from poison into nourishment as they do so.

There is another piece of advice, too, which you may give to both your country and your town friends; and which you may also advantageously share with them yourself. Acquire the habit of being always perfectly clean. Sweep away dust, and wash away dirt and filth, day after day, and week after week. Make no truce with them, for they are uncompromising enemies. If you do not remove them entirely, they will punish you for your forbearance. It is quite true, that a little dirt does not do a great deal of harm; but it is also true, that people who do not mind a little dirt commonly get to bear a great deal of it. It is a very troublesome thing to be always trying to be a little clean. But it is a very easy thing to be always quite clean. People who have once learned the habit of cleanliness, carry it with them for ever afterwards, without being conscious even that they are doing so.

It is a very good plan for persons who have learned the value of thorough cleanliness, to go about, near to and in their houses, in the cool of the evening; observing carefully, whether there are then any disagreeable smells which can be perceived. Very often unpleasant odours can be detected in the chill, damp evening, in places which are entirely free from scents during the day.

So long as the warm sun is shining, it

raises any poison-vapours that are in the act of being bred there, rapidly into the air and scatters them freely. But when the sun has set, and the atmosphere has become cold and moist, the poison-vapours get entangled in the moisture, and float with it along the ground until they are dense and strong enough to be discovered by the nose.

But I have now something more to tell you, concerning the use of pure water, which probably will surprise you very much.

The house which is built of mortar and bricks and of tiles and boards, is not the only house that you are expected to keep in order and wash out; that house is, after all, merely an outer case added to what is more properly your dwelling.

Look at that body which is made up so wonderfully of flesh and bones, and which has such mysterious powers of moving and feeling; that, after all, is really your dwelling. It is in that body that you live, with high duties to perform, and high privileges to enjoy.

But the Great Landlord who has provided for you this comfortable dwelling, very naturally expects also that at least you should keep it clean, so long as you occupy it; and in order that you may have no shadow of an excuse left you to do otherwise, he has furnished it with a very convenient series of outlets through which waste matters may be poured away.

The outside of your body is covered evenly over with a soft, shining coat, which is called the skin. This skin looks to the eye as if it were a continued unbroken covering, but it is not so, it is really full of little holes.

Suppose that I were to show you a small patch of the skin with a strong magnifying glass, you would find that it is marked with ridges and furrows, and that upon the ridges, round holes are dotted along in lines; these holes are so small that in some places as many as three thousand of them are packed together upon a space not larger than the surface of a shilling.

Now suppose, again, that I were to cut down into a piece of skin to see where these holes led to, what do you think we should discover? Why, that they led into little pipes which dip in through the skin, and then are rolled up into knotted balls. Each hole, in fact, is merely the opening or mouth of a pipe beginning by the open mouth above, winding like a corkscrew, downwards, through the substance of the skin, and then rolling up on itself, in the midst of the loose fat beneath.

(To be continued.)

DISEASES OF CHILDREN.

It is almost universally the case, that those complaints to which children are subject, and which hurries vast numbers of them to early graves, arise from overloading the stomach. A child in health always has an appetite, and never appears to be satisfied except when eating; mothers are too apt to indulge them to excess, by giving them whatever they ask for; the consequence is, that more food is taken into the stomach than can be digested, and forms a cold mass of phlegm, which, if not removed either by nature or art, generates disease by destroying in a greater or less degree the digesture. The natural consequence is, that canker gets into the stomach, perspiration ceases, cold chills and hot flushes follow, and the whole system becomes diseased. In this state of the case the doctor is sent for, who gives small doses of calomel, which increases the difficulty, and when the distress becomes alarming, blisters are ordered all over the stomach and bowels. This is generally the last thing done, except to give laudanum to stupify and cause them, as it is said, to *die easy*, for *few* survive this course of practice.

If mothers would have confidence in themselves, and undertake to cure without a doctor, we feel confident that by an early application of such means as are within their power, many lives might be saved, and much distress avoided. To say the least, there would be a far greater chance for them to live, if all violent remedies were dispensed with and nothing but simples made use of, together with good nursing.

When children first appear diseased, it may be known by their being fretful and troublesome. This is evidence of a disordered stomach, and will continue till the canker becomes seated; when they

will be stupid and inclined to sleep. The sooner a cure is attempted, the better will be the chance of removing the disease.

The first thing to be attended to, is to keep them warm, and use every means to cause perspiration. Give a gentle emetic to clear the stomach; then follow with a strong tea made of bayberry-root bark: steep some of this in milk, and feed them often with it sweetened. The steam-bath, when properly applied, is very good, and will always give relief. Injections made of the bayberry-tea with milk in it, sweetened, should be often given. If the child appears faint and languid, wet the face and stomach with cold vinegar, and after steaming, wash them all over with the same; offer them drink often, or they may suffer for the want of it.

By pursuing this plan faithfully, we feel perfectly convinced that very few cases would fail of being successful. It has often been tried in the various complaints of children, and we know of no instance that it has failed to remove the disease, and restore them to health, without doing any injury to the constitution.

LAW OF NATURE.

The only legitimate use, in my apprehension, of the term *law of nature*, is as an expression of that uniformity observed by the philosopher in the phenomena of the universe, which indicates the stability of the original plan. Thus, when we speak of the "law of gravitation," we simply refer to the general fact, that all masses of matter attract each other in a certain determinate ratio, from which we never witness any departure. But it must be remembered, that all our so-called "laws" are but *human* expressions, based upon a very limited amount of observation, and liable to be modified, therefore, by the extension of our knowledge of the entire scheme of the creation; and to suppose that the Deity is in any way tied down to those "laws" which man supposes he has discovered, is equivalent to making man rather than God the legislator of the universe. The true idea appears to me to be this: the material universe was constructed, in the first instance, upon a plan so perfect, that no departure from that plan has been required for the maintenance of its existence and for the welfare of its sentient inhabitants. (To this statement the occurrence of those apparent departures from the "order of nature," which we term miracles, does not constitute a real exception; for every believer in the Divine omniscience must admit that they were as much foreseen and provided for in the original plan, in order to produce a special influence upon the mind of man, as were those occurrences which impress him with the idea of uniformity and fixity, and which thus gives rise to his notion of immutable laws.) But whilst we reject the idea of continued *interposition*, or change of plan, as inconsistent alike with our belief in the Divine perfections, and with the results of our observation of His agency, we cannot do otherwise, in my apprehension, than recognise his *constant sustaining action* as a necessary condition of the continued existence of the universe: for, if we are led to believe, by the indications of a designing mind, which are so abundantly presented to every one who seeks for them, that the *first existence* of matter was but an expression of an Intelligent Will, to what can its *continued existence* be attributed, but to the sustaining action of that same will? Reason and revelation here seem to me in perfect harmony. Further: I can conceive of no agency intermediate between an infinite Deity and his works. Either all the phenomena of the material universe are the immediate results of his will, or they have no dependance upon it whatsoever. In the former case, the "laws of nature" are simply expressions of what *we* know or imagine as to the mode of operation of that will; in the latter, they are nothing else than concise statements of comprehensive truths established by observation. In neither case can the "laws" be conceived to have any real force or agency in themselves, and such as is attributed to them by those who speak of the Deity as framing laws for the universe, and then leaving them to their own independent operation. This mode of viewing the subject has probably originated from the supposed analogy of human legislatures; but this analogy, when carefully examined, not only fails to support such a doctrine, but sustains

that for which I have argued: for a human "law" is nothing else than an expression of the will of the governing power; and its action upon the community entirely depends upon the constant though silent operation of that will. Let the governing power be overthrown by political convulsion, and the laws no longer exert any controlling agency.

The capacity for scientific knowledge in mankind is remarkably various. Some are possessed of the microscopic power of examining minutiæ, and searching out particular truths amid a huge mass of apparent confusion, without experiencing much inconvenience from deficiency of memory or alienation of mind. Others, again, can only observe masses, groups, and broad surfaces, and become confounded with every attempt to descend into particular and minute analysis. The latter never can acquire a large amount of general knowledge. It is vain for them to attempt it. The attempt will only injure their understandings. It will destroy their memory, vitiate their nervous system, and weaken their mental energy. But they can acquire what is really much more useful than various knowledge—a general outline of universal truth, as revealed in Nature. Such men may become wise men, even sages, in the noblest meaning of the word, when the various-knowledge men, with all their bales and packages of small facts, have scarcely procured so much entire wisdom as to preserve their moral respectability in society, or give them the air of rational beings in private conversation.—*Mercury's Letters on Science.*

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T. E. B.—The valuable statistics and letter of our correspondent are postponed (through pressure of matter) till our next.

All letters should be addressed, "To the Editor of the Botanical Journal, 134, High Holborn."

POST-OFFICE ORDERS and all communications for goods, &c. to be addressed to William B. Ford, 134, High Holborn.

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COFFIN'S

BOTANICAL JOURNAL

AND

MEDICAL REFORMER.

"Human experience, which is constantly contradicting theory, is the great test of truth."—Dr. Johnson.

No. 256—Vol. VIII. SATURDAY, MARCH 6, 1858. Price 1d.

MEDICINE NO MYSTERY TO MEDICAL BOTANISTS.

The most important knowledge which concerns mankind, as an inhabitant of this earth, is the knowledge of safe, certain and efficient remedies for the disorders of our bodies.

On medical subjects, speculation has succeeded speculation, theory has succeeded theory, and experiment has succeeded experiment, and disappointment has succeeded disappointment. The visionary projects that have allured the world have all failed to fulfil the hopes of the system-makers. Promised remedies have failed, disease has prevailed against men's wisest and persevering efforts, and doctors and their disciples have been covered with despair. Amongst all the classic volumes of our learned professors, no remedies can be found to compete with pestilence, and, with certainty, arrest and remove disease. They have never devised, agreed or settled upon any system of medical practice adapted to an universal application.

In relation to these facts, a vast proportion, even of the learned world, are wretchedly deceived. It is more than probable that nine-tenths of the people imagine that our regular medical faculty are the men who, by reading, hearing, dissecting, reflecting and practical information, are really in possession of some established system—some definite and generally or universally received principles of medical practice. This system they suppose has stood the scrutiny of centuries, sustained, unshaken, a deserved reputation for truth and certainty, passed the ordeal of learned criticism, received a constant accession of light and evidence for its support, and now to doubt its correctness is to challenge the integrity of the good, abuse the understanding of the wise, trample on the profound researches of philosophy, and to run into new, vague and hazardous inquiries.

All these notions are but mistaken and bewildering dreams, that lead the multitude astray. Those who have time and taste for reading medical works, and reflect carefully as they read, have no need to be informed, that, among our classic, regular faculty, there *is no such* uniform, correct and immutable system in existence. The writings of the wisest and most learned of medical authors abound with inconsistencies and contradictions. In them we often meet with lamentations over the miserable imperfection of the present state of medical science. Every succeeding writer condemns the theories of all who have preceded him. This appears to me to be a true representation of the case. If we venture to say they are all wrong, we only say of them what they are continually saying of each other. If we abandon them all, and refuse to follow them in their extravagant and conjectural meanderings, it is not forsaking any established system, it is not contradicting the general sense of mankind. We do not relinquish the use of medicines which have been proved to possess specific efficacy for the removal of disease: we only leave behind us a jarring mass of disconnected and absurd speculations and nominal remedies, which it is often as hazardous to use as any form of disease

is dangerous to endure. Death is frequently the result of mineral remedies. The natural tendency of many popular medicines is the destruction of human life. Why is castor-oil, or Epsom or Glauber salts, so frequently given after a dose of calomel? We answer, These purgatives are administered to sweep out and carry off the poison, to prevent the troublesome and dangerous consequences of the calomel, to restrain its natural tendency, which is to destroy the patient.

The usual course pursued, is to give a portion of medicine by which the life of the patient may be presumed to be in danger; for two or three portions more are administered to prevent the first from killing. The afflicted patient is compelled to starve, famish with thirst, and crowd the nauseating drugs upon his stomach, dose after dose, to protect his life from the destructive ravages of what was given at the commencement. If the doctor should be so fortunate as to control the deadly poison of one dose of medicine, by giving another equally dangerous, he must succeed far better than many do; and if he fail, what is the alternative? Is there not danger that the patient will die? If a second medicine be given to counteract the effects or natural tendency of another, what was the first given for? Just let us look at it one moment. The life of the patient has been put in jeopardy by one dose of medicine—admit that its fatal termination has been prevented by another dose—what a great achievement!

In this way we discover that medicine is compelled to make war with medicine, and the combined, or rather conflicting, doses, make war with the human constitution. The constitution becomes a theatre of war, the battle-ground where these belligerents meet in dreadful conflict, contending for pre-eminence; disease takes advantage of the debilitated constitution, its energies decline, it cannot long sustain the conflict or endure the burden imposed upon it; it receives no medical assistance to enable it to endure the ravages of the destroyer: overpowered by poisons, and exhausted by her own efforts, the patient sinks and dies. In such a case, who must not see that medicine, or poison called medicine, and not disease, has overcome the powers of life? To what a fearful dilemma is the world reduced! Behold what a confused state of things, what a mass of contradictory dogmas are palmed on the community! What a heterogeneous mixture of superstition, ignorance and folly has acquired the reputation of being a regular system of medical practice! It is this confusion, strife, and delusion of the learned world we deprecate and deplore. It is this we propose to abandon. Many of the evils of this state of things we have seen and felt. We feel bound to raise a warning voice in the ears of our fellow men, let them receive it as they will. Men's unbelief and obstinacy are no apology for our negligence.

We know the inquiry naturally arises, Have *you* the prize which has been sought for so long, and sought for in vain? We answer explicitly, We have—we have found kind Nature's friendly restoratives in *her plants*, the gift of Nature's God! Yes, Dr. COFFIN, the student of Nature, was led by her plastic hand, and impelled by long and pressing necessity, from point to point, until he was thoroughly initiated in the knowledge of her well stored treasury of efficient remedies: prompted by the benevolent feelings of a generous mind, he has spread them out before us. The popular faculty may sneer, the wise may frown, and the ignorant and presumptuous continue to swallow down poisons; we can rest undisturbed by all the busy strife and folly of the world.

Fever (or rather disease under the name of fever) yields to the powerful efficacy of Dr. COFFIN'S Medico-Botanical system. Cholera has fled before it; swellings are dispersed and resolved; pains decline, inflammations abate, obstructions give way, and health and vigour resume their wonted empire, wherever this inestimable system and its accompanying herbaceous remedies are promptly and faithfully applied, if the powers of nature be not sunk too low to rise. Under such circumstances, we know not of any instances of their failure. We do not believe any instances of failure have ever occurred in the use of these means, where cause of the failure could not be unequivocally traced

to a waste or exhaustion of the living power to an irrecoverable point, or to a failure on the part of the practitioner to be furnished with genuine medicine, to have them well prepared and faithfully administered. We make no arrogant pretensions, we do not profess to be workers of miracles, we do not even aspire to be thought great and skilful in mineral remedies and the science of medicine as taught in our classical schools; we renounce all the puffing, quackish remedies in which the faculty strive to excel each other. As the followers of Dr. COFFIN, we cannot rationally aspire to rival each other. We have derived our knowledge from one common source. Dr. COFFIN is our preceptor; his teaching is simple and plain. We have attended with deep attention on his lectures and to his instructions. Reader, wilt thou not go and do likewise? We have full confidence in his system of medical practice. If you will but investigate the subject thoroughly, and give the system the same fair, impartial trial that we have, it will inevitably produce the same impression on your minds as we now feel.

While we thus give vent to our thoughts and express our feelings, should we be called enthusiastical, we reply, The enjoyment of health ranks among the greatest of all earthly blessings; that therefore which will prevent and cure disease must be an invaluable heritage. We have given the system a fair trial, and are convinced of its great utility.

TRUTH.

THE DYSPEPTIC MAN.

MR. EDITOR,—I am so unfortunate as to be the wife of a dyspeptic man, and shall find some relief if you will permit me to spread my complaint upon the pages of your Journal. Men are "*April when they woo, December when they've won*," I have found to my cost. My husband was once as tender and affectionate as I could wish, but, poor man! he is now totally changed; I suppose it is owing to his having the dyspepsia. He is so peevish and fretful I hardly dare to speak to him. "He's always compleenin' frae mornin' till e'enin';" and it is impossible to keep pace with the endless variety of his ailments. If I happen to make a mistake and inquire after the wrong pain, he flies into a violent passion and reproaches me for a want of sympathy in his suffering. It was but yesterday I happened to say, "My dear, how is the pain in your back?" (I had forgotten it was in his side.) This was enough; he cursed matrimony, and declared it was the vilest of all institutions; that a wife was nothing more than a legalised tormentor; and if he were single, he would not marry any woman under the sun—no, not if she had a purse of diamonds torn from a Begum's ear, and much more in the same strain; and at last, cooling down, he asked me if I did not remember that his last *pain* was in his side, and then entered into a history of his malady, that I sorely regretted I had opened my mouth upon the subject. What right have we to worry people thus with our maladies? I never tell mine to any but the doctor, because I know that nobody else listens; I doubt very much whether *he* does half his time. If any one gives my husband the common salutation of How'd ye do? oh dear! he begins at the beginning of his disease, and traces it down, through all its variations, for the last five years—tells all the remedies he has used, and their effects, until you may see a half-suppressed smile lurking upon the lips of the interrogator.

He has tried in turn every remedy of every quack on earth, and has gone so far as to punch himself almost to death with his own *fists*, by the advice of *Graham*. At first, he is always pleased with the medicine; but, at the end of two or three days, protests he is worse, much worse, and vents his spleen upon the physic, the inventor, and upon me, for permitting him to use such trash. Sometimes he comes to me, and tells me exultingly that he has at last found out the panacea—the grand catholicon for all his sufferings. "My dear B——," he will say, "let me explain to you the philosophy of this matter. When food is taken into the human stomach, if it cannot undergo a proper digestion, it goes through a putrefactive process—just such a process as would take place in animal or other substances when exposed to the action of heat and moisture in the open air. A quantity of carbonic acid gas is disengaged, and this gas filling the stomach, acts by

mechanical pressure, and thus produces the pain I feel. Now, I have discovered that, in consequence of my habit of eating fast, my food is not sufficiently *triturated*, and, of course, the gastric juice (Heaven help me!) cannot act upon it; and I am exactly in the situation of the sheep, or any other ruminating animal, who swallows the herbage whole, and then regurgitates that it may undergo a better mastication." Well, what then is the remedy? "I will tell you. I will make John pound my food in a mortar, which will supply the necessary trituration, and I thus shall be a well man." He sent off immediately to the druggist, and procured a nice little Wedgwood mortar; and there stood John every day behind his chair, pounding his meat, bread, and vegetables into a revolting mess, until my poor ears were well-nigh deafened with the din of the pestle against the sides of the mortar. Was woman ever so beset? At the end of the week, finding himself no better, he threw the mortar, pestle, and all at John's head, and would have certainly pounded *him* to death, but for a fortunate dodge, which permitted the mortar to come in contact with my china-press, where it made such havock among my most valuable ware. He was very glad, he said, because I had no business to let the press stand there. It was on the tip of my tongue to say, "Bray a fool in a mortar," &c.; but I checked the impulse, and merely said, I was very sorry, indeed, that he could get no relief. This somewhat mollified him, and the next day he came to me and apologised f r what he had done, and promised to repair the damage by making me a handsome present. This calm was of short duration, for he soon relapsed into gloom; and, as he sat by the fire smoking his pipe, he all at once declared it must have been the cursed tobacco which had poisoned his existence; that, during the combustion of the tobacco, an oil had disengaged, which, mixing with the saliva, was taken up by absorption into his lungs, and had eaten them to a honeycomb. John was immediately called. "Here," said he, "John, take this pipe, and d'ye hear, sir, hide it—hide it where I never can find it again." John accordingly took the pipe, but struggled in vain to choke his laughter: before he could escape from the room, he burst out in such a loud, distinct, irrepressible ha! ha! ha! that there was no mistaking the thing, and he was soundly caned for this involuntary breach of decorum. About three days after this, in the evening, after tea—my husband's favourite time for smoking—I observed him very restless, indeed; he rose, walked about the room, sat down, whistled, hummed a tune, rose again. At last he began to rummage about the wainscot, mantel-piece, and behind the book-case, and, suddenly turning round, he called John in a softened voice. "John, my good fellow, where is my pipe? I must have left it in the study, do go and look for it." John hesitated and grinned. "What's the fellow laughing at? Begone, sir! and bring my pipe immediately." John speedily vanished. Turning round to me—"You see my unhappy condition; my very servants turn me into ridicule, and you do not reproach them for it." I could not reply, but felt anxious to point out to him that he could never hope to be well, because he would not adhere for a space of time sufficiently long to any plan whatever. His scheme now is to eat nothing but cold bread; it must be put away in a *pure* place to *ripen*, as he calls it. Hot bread just from the oven, he says, is giving out carbon continually, and has not imbibed sufficient oxygen to make it wholesome. Can you forbear smiling, Mr. Editor? Now, I know there is nothing of literature in all this, unless the chemical disquisitions of my wretched husband may be so considered; but, nevertheless, I flatter myself you will give me a place in your Journal, because many a victim of dyspepsia may look in this mirror and see himself.

BELINDA.

THE USE OF PURE WATER.

(Concluded from page 202.)

Now how many of these little open-mouthed tubes do you think you have in the skin of your body? Should you wonder to hear that you have as many as there are hours in a long year? Oh! you have many more than that: it would take you six long years to count them, if you reckoned one every minute. You have three millions of holes in your skin!

But, again, how far do you think the three millions of tubes, running in from these holes, would reach, if they were all joined together and stretched out in a line? Positively not less than twenty-eight miles!

You will readily admit that three millions of holes and twenty-eight miles of pipes, are not likely to have been placed in the skin of a single body, without a purpose; what purpose, then, do they serve? Why, they are drains and sewers which the Great Builder, who made this house for you to dwell in, has furnished for carrying waste matter away from it.

So long as the body is in a healthy state, water pours out freely through these holes in the skin. This water is not generally seen, because it flies off into the air, as steam. But there is a large quantity of it: never less than one pint is poured out during twenty-four hours, and often as much as four pints.

But the water which pours out of the body through the holes in the skin, is not pure water; it is dirty water, containing a great deal of decaying and poisonous waste matter. As water passes through the living body, it washes out all the hollows and chambers it runs through, and cleanses them, carrying away useless and offensive substances.

The dirty water that pours out through the holes in the skin, is called perspiration, or sweat. The greater part of the bulk of this perspiration is water; but not less than a quarter of an ounce of decaying solid substance is mingled with the quantity that flows away in twenty-four hours. As decaying substance is poisonous, it therefore follows that a quarter of an ounce of poison is drained away from the body through the sewers of the skin, every day.

But with a skin thus formed, suppose you go on eating and drinking and working, day after day, and take no care of these pipes and holes, what do you think will happen? Why the same thing that would take place with house-drains under the same circumstances. The little pipes will get choked up, and poisonous matter will collect more and more inside of the body, until fever and derangement will be caused by its presence in the blood.

It is only the water of the perspiration that can fly off into the air, as steam; the thicker decaying substance that was mingled with it, is left behind on the surface of the skin, and is there mixed up with all sorts of dust and dirt that fall on it, until a kind of filthy varnish is formed, which chokes up and closes all the little sewers.

How then should you get rid of this dirty varnish, and open the mouths of these sewers, so that they may go on properly, pouring out their waste substance? Clearly by washing the skin well with pure water, at frequent intervals.

Dirty skins help foul air in its mischievous work. They keep poisonous matter inside of the body, and in the blood, which needs, for the health's sake, to be constantly got rid of. Clean skins help fresh air in its health-preserving work.

The entire body, from head to foot, needs to be carefully washed with pure water, at least twice in the week. It is far better that it should be so washed once every day, and the best time for doing this is on first getting out of bed in the morning.

You tell me that you have a great deal to do, and that you cannot afford the time which this would require. My answer to you is, that you can better afford that time than you can the loss which want of cleanliness is very likely to bring. It would take you about five minutes at the outsides to wash yourself thoroughly every morning. Now how many such five minutes are there in every day? Not less than 288! Is it not worth while to take one of those 288 from sleep, or from any other occupation, to make sure that the three million outlets God placed in your skin to afford an escape for poison out of your blood, are open and clear, and performing their beneficial work?

The most pleasant and ready way in which the daily washing of the body can be performed, is to sit in a sort of tub, containing half a pailful of cold water, and to splash this over the skin by means of a piece of sponge, or a piece of flannel, rubbing the surface well all over, and

afterwards drying it quickly with a coarse towel.

A bath of cold water in the morning, directly on getting out of bed, is refreshing and strengthening, besides being essential to cleanliness. It brings a warm glow to the skin, encouraging the free flow of blood through its vessels, and guards against the risk of taking cold from accidental exposure during the day. Even in the coldest weather of winter time, people feel much warmer when they wash all over with cold water before they dress, than they do when they huddle their clothes on as fast as they can upon an unwashed skin. No one who has once tried the plan of washing thoroughly every morning will ever again desert it. He will go on with it if it be only for the pleasure and delight that he finds in the practice.

But you say, you do not think you can manage to get a tub that you could use for this purpose: that I doubt very much. In these matters I am quite sure that where there is a will there is a way. I believe that all you need is to be made aware of how important the thing is, and that then you will certainly find a way to do it. But even if it be true that in consequence of some peculiar difficulties in your position, you cannot manage the bathing upon this agreeable plan, you may then, nevertheless, accomplish all that cleanliness actually requires by the help of a couple of old towels, and a couple of pints of water. The skin may be first thoroughly washed with the wet towel, and afterwards be rubbed with the dry one. At any rate, this you must quite understand—there is no possible escape from the necessity. Nature has ordained that certain things shall be done, and what nature has ordained must be accomplished, or the penalty of folly and disobedience must be paid. He who chooses dirt and laziness in preference to cleanliness and well ordered exertion, must take disease and misery, and possibly even death too, into the bargain. Never forget that the slight self-denial which refrains from purchasing a few pints of unnecessary beer, is amply sufficient for providing such a necessary and luxury as a morning bath of pure water for the rest of a long life.

Some portion of the impurities of the perspiration is soaked up into the linen that is worn next the skin. If the same linen be worn day after day, these impurities gather in the linen more and more: this is why linen becomes very dirty by constantly wearing it without change. It is of very little use that the skin is duly washed, if it be wrapped round directly afterwards with a fabric whose pores are entirely filled with refuse matter, like that which has just been cleansed away from its surface. It is absolutely necessary to health that the linen should be changed and washed every few days.

When the body is covered up closely at night by the bedclothes, the perspiration flows more freely from the warm skin. A portion of this is soaked into the linen worn immediately round the body, but another portion steams into the sheets and blankets. Hence these too require to be sometimes changed and washed. Dirty bedclothes, like dirty body-linen, keep the body closely wrapped in poison which it was meant it should be freed from. It is a very excellent proceeding always to fold back neatly all the bedclothes, off the bed, upon getting up in the morning, and to leave both the clothes and the bed exposed two or three hours with the window of the chamber wide open, so that the fresh wind may blow in freely and disperse any poison-vapours that are lurking about the fibres and in the pores of the clothes. On dry, sunny days the beds should be taken out into the open garden or yard, if there be one that can be used for the purpose, and should be laid in the bright sun and fresh air to purify.

Remember then, that fresh air and pure water are twin sisters, sent down upon earth to work in close compact for human good. Upon the hill-side, in the green valley, and upon the broad plain, they run together in intimate companionship. Beware how you either sever them or banish them altogether from your dwelling. Only in barren deserts and in deadly fever-haunts, are they ever divided or absent. If you would not have your home a barren desert or a fever-haunt, take care that you find there a warm welcome and good entertainment for this bountiful and gracious pair.

PHYSIOLOGY OF PLEASURE AND PAIN.

Pleasure is the ordinary result of the action of the organs; pain is sometimes the result, but it is the extraordinary not the ordinary result. Whatever may be the degree of pain occasionally produced, or however protracted its duration, yet it is never the natural (that is, the usual or permanent) state, either of a single organ, or of an apparatus, or of the system. The usual, the permanent, the natural condition of each organ, and of the entire system, is pleasurable. Abstracting therefore from the aggregate amount of pleasure, the aggregate amount of pain, the balance in favour of pleasure is immense. This is true of the ordinary experience of ordinary men, even taking their physical and mental states such as they are at present; but the ordinary physical and mental states, considered as sources of pleasure of every human being, might be prodigiously improved. There are cases in which pleasure is manifestly given for its own sake; in which it is rested in as an ultimate object: but the converse is never found: in no case is the excitement of pain gratuitous. Among all the examples of secretion, there is no instance of a fluid, the object of which is to irritate and inflame: among all the actions of the economy, there is none, the object of which is the production of pain. Moreover, all such action of the organs, as is productive of pleasure, is conducive to their complete development, and consequently to the increase of their capacity for producing pleasure; while all such action of the organs as is productive of pain is preventive of their complete development, and consequently diminishes their capacity for producing pain. The natural tendency of pleasure is to its own augmentation and perpetuity. Pain, on the contrary, is self-destructive. Special provision is made in the economy for preventing pain from passing beyond a certain limit, and from enduring beyond a certain time. Pain, when it reaches a certain intensity, deadens the sensibility of the sentient nerve; and when it lasts beyond a certain time, it excites new actions in the organ affected, by which the organ is either restored to a sound state, or so changed in structure that its function is wholly abolished. But change of structure and abolition of function, if extensive and permanent, are incompatible with the continuance of life. If, then, the actions of the economy, excited by pain, fail to put an end to suffering by restoring the diseased organ to a healthy state, they succeed in putting an end to it by terminating life. Pain, therefore, cannot be so severe and lasting as materially to preponderate over pleasure, without soon proving destructive to life. But the very reverse is the case with pleasure. All such action of the organs as is productive of pleasure is conducive to the perpetuation of life.

ON URINARY OBSTRUCTIONS.

In urinary obstruction, it has been observed, that a combination of several articles reputed diuretics will often succeed where the best medicines of that class have failed when given alone. By judicious combinations, there is evidently very frequently obtained an increase of power and energy, and a medicine will be furnished that will have a more certain and salutary effect than can be derived from any single article. "It is a truth universally admitted," says a modern and very excellent writer, "that the arm of physic has derived much additional power and increased energy from the resources that are furnished by the mixture and combination of medicinal bodies. I by no means intend to insinuate that the physician cannot frequently fulfil his most important indications by the administration of one simple remedy; I only contend, that, in many cases, by its scientific combination with other medicines, it will not only act with greater certainty and less inconvenience, but that its sphere of influence may be thus more widely extended, and its power so modified and changed, as to give rise to a remedy of new powers." To no class of medicines will these reasonings apply with greater force and certainty than to those termed diuretics.

Every man ought to endeavour at eminence, not by pulling others down, but by raising himself, and enjoy the pleasure of his own superiority, whether imaginary or real, without interrupting others in the same felicity.—*Dr. S. Johnson.*

STATISTICS OF MEDICAL BOTANY.—REGISTER SHEET.

(Continued from page 71.)

Name and Residence.	*Age.*	*Ailments.*	*Previous Medical Attendants.*	*When came under Bot. Treat.*	*Present state of Health.*
John Dunwell, Middlegate-street, Hartlepool.	45	Scorbutic eruptions, with general decline.	Two medical men and the surgeon of the club.	November 9th, 1856.	Very good.

GENERAL REMARKS.—This patient had been under the faculty for upwards of two years; but still getting worse, he was persuaded by some friend to try the botanic remedies, as the last resource. Being called upon to prescribe medicine for him, he asked me if I could cure him. I told him, with patience, and strict adherence to the botanic remedies, he might be restored to health; when, in three months, by the aid of lobelia and cayenne pills, with alterative and strengthening medicine, vapour-baths and astringent lotions, to the astonishment of all his friends, he was following his employ, never ailing since.

Mrs. Dunwell, Middlegate-street, Hartlepool.	27	Dyspepsia, with worms.	Refused the usual medical treatment.	January 12th, 1857.	Enjoying good health up to the present time.

GENERAL REMARKS.—Mrs. Dunwell was very much reduced in health, complaining of pain of the stomach after eating, and at the left side. She commenced taking the botanic remedies, and in one week she passed a stomach worm in length about twelve inches, after which the patient rapidly recovered, wishing she had heard of me before, as she had been suffering from the effects a long time.

Mr. Foster, Egypt, Hartlepool.	26	Smallpox.	None.	February 10th, 1857.	Quite well.

GENERAL REMARKS.—This patient was confined to his bed, and the parents became alarmed, being the only son: they begged of me not to let him escape me. I prescribed the treatment in Dr. COFFIN'S "Guide to Health," with an injection for the first and second days, with lobelia emetic, and the eruption came out very full, all being surprised at the difference between the botanic treatment and that of the old school's cold, depletive medicines, recommending the botanic remedies to every one they possibly can turn. The sick-club accepted my certificate for his money.

Mrs. Wilson's child, Bond-street, Hartlepool.	6	Croup.	Refused medical treatment.	February, 1857.	Quite well, having no attacks since.

GENERAL REMARKS.—This was a case of a very dangerous nature, as it would continue hours together, all expecting he would be strangled; but by the usual treatment, watching of him night and day, he has recovered, leaving a hard task to the bigoted, who were going to eat him if he recovered.

Mrs. T., West Hartlepool.	35	Scorbutic eruption of the arms and body.	Two surgeons.	January 10th, 1857.	Quite well in four months, never appearing since.

GENERAL REMARKS.—This lady had been suffering for a length of time from the woful quackery she had received from the medical gentlemen while they had attended her, salivating her twice, and, to satisfy her upon one occasion, was told that she had a constitution like a donkey, and that the eruption would appear every three months, ordering the patient to have a hot brick ready by then he came again to try his sulphur dodges; when, to his satisfaction, but disappointment, the arms were getting better, through a neighbour persuading her to try the botanic treatment. I prescribed the usual remedies, to the satisfaction of the patient and friends, who have since embraced the system of Medical Botany; but for the afterclap—for the M.D.'s tap, tap, tap, which one amounted to five guineas for torturing and experiments, while the bill of the Medical Botanist was only one pound five shillings. I hope the public will soon have their eyes open to such impositions,

Charles Bland, West Hartlepool.	27	Typhus fever.	The botanic practitioner.	July 10th, 1857.	Quite well.

GENERAL REMARKS.—This patient had a severe attack; but by the botanic remedies being the first he applied to, he was able to follow his employ in a fortnight, being told it was impossible for him to have been so bad and recovering in so short a time, as the typhus fever generally carried people off under skilful men, let alone one that treats with herbs; it would be better for many if they came at first, and not trifle with the minerals, which will kill in health: what may we expect would be the result in so dangerous a disease?

William Pitch, West Hartlepool.	27	Consumption, with ulcerated bowels.	Two surgeons.	May 19th, 1857.	Pretty well, following his employ.

GENERAL REMARKS.—This young man had been under the faculty for months; but getting worse, being confined to his chamber, the parents began to lose all hopes of him, feeling satisfied something must be done for him, or he would not last long: they wrote for the brother to come if he wished to see him alive, when he persuaded them to send for me, to see if I could do him any good. He was sadly reduced by relaxation, which was stopped by astringents and tonics, with stimulants, from botanic remedies, in about a fortnight, being quite well at the present time. Calling last week to receive compensation for my labour, he had flown like a bird in the night, no one knowing where he had taken up his abode. Since writing this account, I have received a postoffice order for my trouble, stating that he is enjoying better health than he has done for years.

Mrs. Plackinsup, Egypt, Hartlepool.	40	Inflammation of the intestines.	Refused medical treatment.	December, 1856.	Middling.

GENERAL REMARKS.—This was a very acute attack, with vomiting, and severe pain, also great prostration of the system; but it will be well for the public who have had the opportunity of reading the Botanical Journals thus far, and have not a botanic practitioner close at hand in a similar case, to adopt the following treatment. In this case, lobelia emetics, with cayenne and yarrow, hot fomentation, with injections, she found immediate relief, being able to attend to her family in two days, whereas by pursuing the allopathic treatment it might have been as many months, as in similar cases.

Mrs. Plackinsup's four children, Egypt, Hartlepool.	From 5 to 13	Smallpox, with fracture of the radius bone.	None.	December 7th, 1856.	Doing well.

GENERAL REMARKS.—These four boys being heavily attacked, the father of the children being asked by his employer what medical man he had attending them, told him, None, but that he had the botanic practitioner. Not feeling content, he asked him how he dare trust his children to such a man, having no diploma, nor passed the Medical College of Physicians, treating disease by the use of herbs only, and how he would like it if he brought a man, breaking stones on the highway, to do his work—whether he thought that man would be a fit engineer in his room, and know how to draught anchors for ships, &c., to which the father replied, it was quite a different case, as the botanic practitioners had a system they learnt themselves of curing disease by herbs, whereby they could combat disease more successfully than the medical profession, with all their skill, feeling convinced his children would have a speedy recovery under the herbal doctor, and he could trust them to my charge; but that, under the mineral doctor's, he would have to stay at home and attend them himself, and lose two out of the four, if not all in the end, assuring him he would have no other than the botanist to treat himself or family when in similar circumstances. All being quite recovered in a fortnight from the smallpox, when one, about seven years, coming out the first time, fell down on the ice, and fractured the radius of the right arm, but by application of hot fomentations and cold tincture of myrrh he was able to use it in a fortnight, as well as the other.

Mrs. Woods and four children, Devon.	36 2 to 13	Fever, malignant, putrid or spotted.	Botanic practitioner.	October, 1857.	Quite recovered.

GENERAL REMARKS.—This female had a heavy attack, being confined to her bed about a fortnight, being very weak, but gradually recovered under the botanic treatment.

REGISTER SHEET—*Continued.*

Four children.							

General Remarks.—These four children were very dangerously ill, the first being very weak, and unable to take anything for nourishment, being full of large, black or livid spots all over the body, discharging a considerable amount of pus: the second child being similar, but being still more seriously ill, with glandular swellings of the neck, and one leg from the body downwards—swelling, with intense inflammation, causing the little sufferer the greatest agony, and expected every minute by the parents to breathe her last, being covered from head to foot with large fever sores, leaving a livid appearance, towards her recovery: she was very weak, her only nourishment being chicken-broth. The third child showed a high state of feverish symptoms, when hæmorrhage from the mouth and nose proceeded, saturating the child, bed and floor in quite a pool of blood, leaving a horrible sight to the bystanders: given up in despair by all, when, by the botanic treatment, and perseverance, I stripped the clothes off him, covered him up in hot blankets, and succeeded in abating the bleeding in about two hours; but it returned the following morning, but not with such violence. I resorted to the same treatmeat, consisting of cayenne pepper, composition, and gum arabic, under which he gradually recovered: the fourth was a similar case to the mother's, allow me to refer the reader to it. I could give you fifty to one hnndred cases of a similar character, cured by the botanic treatment without one failure, but time will not permit, while the allopaths or old school doctors were losing their patients *daily*. Hoping this will be taken as a proof of the invaluable remedies recommended by Dr. Coffin, and show what Dr. Coffin's Agents know, after those beautiful theorists (the doctors) have failed, I remain, yours, &c.,

Thomas E. Brockies, Sole Agent to Dr. Coffin,

Northgate-street, Old Hartlepool, Durham.

TO OUR AGENTS.

We shall be greatly obliged by all of our Agents sending us statistics of the most remarkable and important cases that they have cured during the last year and up to the present time, for a *most important* and *special purpose;* to facilitate which, and prevent trouble, we have subjoined the plan or form we are desirous should be used, and shall feel gratified by its being strictly adhered to.

FORM.

Agent's Name.	*Residence.*	*Patient's Name.*	*Residence.*	*Whether having been under a regular Practitioner.*	*The Disease.*	*When applied to.*	*In what time cured.*

Early Marriages.—The advocacy of early marriages is always conditional, the circumstances of each case having to be considered on its own merits. In all grades of life prudential forethought must be exercised. No man ought to think of marriage without a reasonable prospect of being able to support a family, or without being prepared to make sacrifices and submit to self-denial. We are not recommending matrimony to young men only making their start in the business of occupations of life. But whenever, by dint of industry or exertion, the annual return, either from professional or commercial pursuits, has reached a sufficient sum, or where there is a fixed and certain income of similar amount, the married state is in most cases desirable, and will often, in fact, be attended with little additional expense. Even when it may in some respects involve social descent, this is more than counterbalanced to a right-thinking mind by moral elevation. It depends very much on personal character and disposition whether an early marriage tends to the advancement or depression of a man. Our observation of life leads us to believe that, temperament, habits, and opportunities being equal, the chances are at least four to one in favour of married men getting on in the world better than those who are single. The records of history and biography abound in proofs and illustrations of this opinion.—*Family Herald.*

PHYSICIANS.

It is a very common opinion that men and women cannot be trained to be their own physicians; and it is probable that there are cases of rare or complicated disease, or of dangerous accident, in which the experience gained by extensive practice may be necessary to suggest a remedy or to perform an operation. But in nine cases at least out of ten, a very moderate acquaintance with the human body and with its functions, and with the causes that impair and the precautions that preserve these, would enable us with ease to cure, or—yet better—to prevent the *latent* indisposition. This is a fact that has been repeatedly acknowledged, both in private and in public, by the most eminent physicians, and its accuracy is the less to be doubted, inasmuch as it is notoriously the pecuniary interests of physicians to conceal it.

Admitting, then, its truth, how injurious the ignorance in which children are kept of what most concern them to know! and how desirable that a few at least of the days and years that are spent in learning the languages and customs of two semibarbarian nations of antiquity, should be devoted to learn that the knowledge of which will advantage us every day of our lives. But, however desirable for the mass of mankind, that they should be taught how to retain that first of blessings, health, and that they should further be taught how to regain it, when lost, it is, nevertheless, NOT the interest of the physician, that his neighbours should know anything about their bodies; it is not his interest that they should be taught how to retain their health, nor how to arrest an incipient malady by some simple remedy. Other men's ignorance is his gain. Their folly fills his purse. If they were educated as common sense dictates, he would be a poorer man. If they knew what they ought to know, his knowledge would turn to less account. Common sense, therefore, is, in a pecuniary point of view, the physician's enemy. Again: how important is it that men and women should know the consequences of excess, and that, knowing these, they should not be tempted to act against their knowledge! How inexpressibly important that there should be no gin-shops, nor any of those houses—the bane of large cities—where popular morality abandons to disease and death its outcast victims. Yet it is the physician's interest that all this should go on: intemperance is his patron; a debauch is a harvest for him; gin-shops and brothels make him a rich man; each ruined constitution brings him a customer and a fee. He may, doubtless he does, lament all this, for no one knows all its horrors as he does, but he must be more or less than man, if he does not feel that he lives by it.

THE BOTANICAL JOURNAL AND ITS READERS.

To the Editor of the Botanical Journal.

Dear Sir,—Allow me to congratulate you, upon the scientific and pure botanical manner in which the Journals of late have been conducted; and may they ever continue to progress and spread the truths of the herbal kingdom, and show the public that God has made nothing to grow in vain, and that there is truth in the Botanical System of medicine, as founded by Dr. Coffin in England, which is rapidly spreading its way from the east to the west, north and south districts of the United Kingdom, and that it has relieved thousands of our suffering brethren from the many diseases they have been suffering under, and from an untimely end, from the medical monopolising sects, of blistering, bleeding, leeching, cupping, scarifying, *salivating* either by outward or inward application, according to the easiness and credulity of the person they prescribe for; if they will not take it in pills, they will try them in draughts, and if they find it does not suit their patients' palate, they will rub it into their bowels and thighs, with mercurial salve, and cheat them before their faces and exclaim, "Sir, or madam, I believe you will have a favourable crisis, and soon recover"—but alas! too late. What do you expect to be the consequence? You may think me too severe, but I speak from experience, cases of which I witness so frequently, and have a case not far from me which makes my

heart bleed to enter the chamber, to see the mistaken and ignorant manner with which this case has been handled; whereas if it had been left to nature and simple treatment, the system would have returned to its natural energy. But I doubt I am trespassing too much on your Journal. I have enclosed a list of statistics of my practice, and hope you will find room to insert them in the next Journal or following one. I have been rather long in sending them; but may they be the forerunners of others from all parts of the kingdom, with longer and stronger proofs of the virtues of that invaluable system introduced into England, by its worthy and talented founder Dr. COFFIN.

I remain, your humble servant,

THOMAS BROCKIES,

Botanic Dispensary, Northgate-street, Old Hartlepool.

January 26th, 1858.

VARIETIES.

Envy is mere unmixed and genuine evil; it pursues a hateful end by despicable means, and desires not so much its own happiness as another's misery.—*Dr. S. Johnson.*

RESIN OIL FOR BURNING IN LAMPS.—It is stated that the proprietors of a manufactory of resin oil, near Wiesbaden, have at last succeeded, after continued trials, in purifying it, and in constructing ordinary lamps with a never-failing reservoir for the oil. The Argand burner with a double draft of air, by merely a small alteration, has been rendered available, producing a beautiful white light, which, with a diameter of 1.2 centimetres, is equal to the light of four stearine candles, at one-twentieth of the expense. The light is said to be so intensely bright that it is even painful to the eye.

DIVISIBILITY OF MATTER.—This is a property possessed by all bodies, and means their capability to be separated into parts. It was formerly a question among philosophers whether matter was capable of being divided *ad infinitum*, or whether there was a limit beyond which matter could not be divided. The question is incapable of direct solution, and fortunately science does not require that it should be known; but the extent to which subdivision has been carried in the arts is prodigious. In the gilding of buttons, five grains of gold, which is applied as an amalgam with mercury, is allowed to a gross; so that the coating left must not be more than the 110,000th part of an inch in thickness. If a piece of ivory or white satin be immersed in a solution of nitro-muriate of gold, and exposed to a current of hydrogen gas, it will be covered with a surface of gold not exceeding the ten-millionth of an inch in thickness. A single grain of blue vitriol will give an azure tint to five gallons of water. In this case the copper must be attenuated ten million times, and yet there is sufficient in each drop of water to give it colour. Odours are capable of still further diffusion: a single grain of musk has been known to scent a room for twenty years. Animal matter likewise exhibits many instances of wonderful subdivision. The milt of a codfish when it begins to putrefy, has been estimated to contain a billion of perfect insects, so that thousands of these little lives could be lifted on the point of a needle. One of the infusorial animalcules found in duck-weed is ten million times smaller than a hemp seed; and another, discovered in ditch water, appears in the field of a microscope a mere atom endowed with sentient life, and millione of them play like sunbeams, in a single drop of liquid.

FORD'S
CELEBRATED TRICOPHEROUS.

The best-approved application for cleansing, beautifying, preserving and reviving the hair. It should be used by all persons recovering from fever, or any other illness, as it restores the tone of the cutical secretions, and gives a healthiness to the hair and skin.

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Visits to Patients, 2*s.* 6*d.*, in advance.

G. CALDWELL,

Surgeon and Practitioner of Medical Botany, Proprietor of the Botanic Dispensary,

34, WORCESTER STREET,

Sole Agent for Dr. COFFIN in Birmingham, from whom all the Herbs, Roots, Barks, and preparations used in the Botanic Practice, can be had genuine.

Mr. CALDWELL may be consulted daily, from 10 to 12 in the morning; from 2 to 4, and from 6 to 8 in the evening (Sundays excepted).

The Botanical Journal and Medical Reformer is published Fortnightly, at No. 134, High Holborn, London, where all orders must be addressed.

COFFIN'S
BOTANICAL JOURNAL
AND
MEDICAL REFORMER.

"Human experience, which is constantly contradicting theory, is the great test of truth."—Dr. Johnson.

No. 257—Vol. VIII. SATURDAY, MARCH 20, 1858. Price 1d.

THE GLEANER, No. 8.

Mr. Hunter says, "that bleeding increases irritability, and causes an increased disposition to act, without the power to act with." The way in which bleeding increases irritability is this: that it produces direct debility. When it is said that a part of the whole body is irritable, it means that such part of the body is much affected by slight causes; there is so much weakness as to disqualify the part to resist slight attacks. In this state the body corresponds with the mind of those persons who get angry from slight and trivial causes, and are said to have irritable tempers of mind; and everybody knows that this irritability of temper arises from weakness of mind.

Bleeding causes an increased disposition to act, since it increases the weight of the disease, by *diminishing the strength of the one who bears it.* The same load that would be regarded as light by the strong man, would be declared by the weak man to be insupportably heavy; and if the burden were to be carried to a little distance by the weak man, he could not stand and hold it till the obstructions could be moved out of his path, but he sees that his only alternative is to make onwards; and from being weak, the burden heavy, and his path rough, he probably falls before he gets half way; he is no more able to raise the load—no, nor to raise himself. Not so with the strong man: he stands with his load on his shoulders till some one (the physician) goes and moves the obstruction out of the way: he then advances with firm and sure steps, arrives at the destined spot, throws down his burden, and is free and ready to attend to his business. In speaking of the weak man, it should have been observed, that, should he get through and throw off his burden, still he is so much exhausted as to require much tonic medicine and a convalescent stage for several weeks.

"Bleeding increases the disposition to act, without the power to act with." Suppose a hungry person just to sit down to a table furnished with food agreeable to his taste, but there is only enough for his present necessity; now suppose one to come and carry off the food from his table; would not his disposition to act be increased, without the means to act upon? He would see that his only choice would be, to make sure of all he could while it is going. So, when the human system is labouring under disease, and some wise son of Esculapius comes and begins to abstract the blood, the disposition to act is increased, because the system seems sensible that a certain effort must be made, and that her power of making it is going. Nature, therefore, makes the attempt; but too often finds her resources deficient from loss of blood. But, say our brethren of the bleeding faith, *we know* that we can reduce fever and inflammation by bleeding, sooner than by any other means. We admit that this assertion is correct; but it is one of the strongest arguments which can be used against the very mode of practice for the vindication of which it is urged: for every person who has a correct view of fever and inflammation (which we

call local fever) must see that they should not be reduced till the disease, for the removal of which they were excited shall be subdued. So bleeding does not effect the diseased object; it only does it *apparently*. Though the removal of disease is invariably attended by a subsidence of fever, yet the reverse of this can in no case happen. If an individual discovers that his health is somewhat deranged, the natural desire to live, together with the recollection of the enjoyment of health, prompts him to make an effort to restore health. He sends for a physician of the REGULAR order (because he requires *regular treatment)*; his physician comes, and, after feeling his pulse, viewing his tongue, and making some inquiry of the state of the bowels, pronounces his patient to be sick of a fever: if the fever be high, he recommends his patient to be bled; upon being bled, the pulse sinks, the strength fails, the fever is diminished or weakened, and the disease strengthened.

But what is the *modus operandi* or manner in which the bleeding acts in the removal of disease? Who is able to tell us? We must say, that we have never seen even a plausible explanation given concerning its curative powers in our reading, and we believe we have carefully studied and read those authors on practical medicine and surgery who most boldly and strenuously advocate the practice of bleeding for the removal of febrile and inflammatory diseases. The fact is obvious, that bleeding is a mode of practice which, when used for the cure of disease, *admits not of a rational explanation;* nor will physicians attempt to explain its effect to men of enlightened and experienced minds. They may say that bleeding is an ancient practice, and that it has been sanctioned by men of much learning and experience, and that this is sufficient authority. But the march of science and truth have condemned many of those practices which were thought proper in ancient times. As well might we say it was right to worship idols because it was customary in past ages; and, we might add, even too common in our own day and country; for whether is it better to worship the sun, moon and stars, or to worship wealth, fashion, fame and worldly applause? "Well," says one friendly and well-disposed reader, "from what you have said on the subject of blood-letting, I am disposed to regard it as a bad practice *in general;* yet I think you must admit that bleeding is good in some few cases, such, for instance, as pleurisy, and violent bruises from falls and blows." No, kind reader, we cannot admit that the abstraction of blood is a good practice, even in those cases. To agree with our fellow men in sentiment, feeling and thinking are agreeable and consistent with reason, and productive of general good and happiness—is a source of much gratification to an improved and virtuously directed mind; but whenever we discover that our fellow men are labouring under unreasonable and erroneous impressions or sentiments, to agree with them in such sentiments would be hypocrisy, not wisdom; would be vicious, not virtuous; and would excite the sensation of an admonishing and condemning conscience, not the peaceful delights of conscious good. Pleurisy is an inflammatory disease; that is, a diseased state of that delicate and finely organised membrane (the pleura) which lines the internal parietes of the thorax, or chest, and forms a complete envelope for the lungs. This diseased condition of the pleura necessarily demands and gives rise to inflammation, which, through the medium of universal sympathy, affects the whole arterial system, and therefore comes under the head of general fever. It is well known by all those who have been the subjects of this disease, that it is one of excruciating pain and almost insupportable suffering. The acute pain arises from distention of the pleuritic arteries and veins, increased and morbid sensibility, and the unavoidable dilatation and contraction of the lungs in performing respiration. But this pain is only a secondary and necessarily consequent symptom; that is the inflammation. Nature's efforts to remove the disease could not be performed, but at the expense of this severe pain. We must recollect that the part affectedi s highly sensible and constantly agitated by the motion of the lungs; the causes (we mean the immediate causes) which produce the

pain, are absolutely requisite for the adjustment of the derangement: hence the pain must be regarded as a partial and necessary evil, which is more than counterbalanced by the good which grows out of the direct causes that excite the pain. From what has been said, we come to the conclusion, that means may be used in the treatment of disease, which relieve pain, but *strengthen disease.* So in pleurisy, bleeding generally gives speedy relief, since it produces a vacuum in the vessels of the bleeding vicinity, thus making room for some of that blood which should and would have gone to the affected part; but how long would this relieve from pain?

The answer is obvious; viz., just long enough for the vacuum to be filled, and the blood to be again (and necessarily too) injected into the arteries and pleura. Then, when Nature commences her efforts to relieve the oppressed organ, the pain, as an unavoidable consequence, returns. If the doctor is present, he bleeds again, and gives relief for the moment in the way before explained. Should Nature once more be able to make an effort, sure as the doctor finds it out, he bleeds. Now, if any one wishes to know the result of such practice, let him call to mind the cases of pleurisy which he knows to have been treated in this manner, and then say, if our patients have not been doomed to a speedy dissolution, a long convalescence, or a slow, sluggish and ineffectual fever (termed by the faculty *typhoid pneumonia)*, or, in simple language, disease of the lungs, accompanied with the ineffectual and puny efforts which Nature makes after being deprived of her strength. The result of what we have said upon bleeding, in cases of pleurisy, is, that pain, in all diseases, is a consequent and unavoidable symptom; that the degree of pain will be proportioned to the degree of sensibility in the affected part, and the extent of the disease; that pain may be relieved without removing disease, and that, in all these cases, there is danger that the relief is purchased at too dear a rate; that bleeding, though it may, and frequently does, give temporary relief, never fails to add strength to the disease by weakening the vital powers of the system; that there is no more propriety for bleeding in cases of pleurisy, than in any other inflammatory affection of the internal organs. In cases of severe falls and bruises, it is customary for surgeons to bleed immediately, and the custom is sanctioned by the common consent of thousands; but we appeal to those surgeons of modern education for a refutation of this practice: they know it is condemned by some of the greatest and best authors on modern surgery. When a blow or fall is first received, it produces a general oppression, which can only be obviated by a reaction; bleeding protracts the interval between the reception of the injury, and the commencement of the reaction or fever, and necessarily renders the reactive effort less effectual when it does come on. Authors have recommended that bleeding be delayed till a reaction takes place, and then let bleeding be in proportion to the strength of the reaction. We would strongly recommend, that in all such cases, bleeding be delayed, till reaction takes place, and then (unless we presume to know more in such matters, than the Governor of nature's laws) *not bleed at all.* The equilibrium of the circulation is deranged or destroyed, by the blow or fall, and the reaction or fever is all that can restore it. Now we, with our simple system, at once attend to *assist Nature!* not weaken her: we would at once give the patient a vapour-bath, and by so doing, we by heat lighten the heavy pressure of the atmosphere, and accompany the same with a stong *pure* stimulant, such as cayenne pepper, Lobelia, and composition-powder, a teaspoonful of which, taken into the stomach, will give an almost instant impetus to the circulation, the heat applied externally will subside, the pores opened, and the patient soon recovers. Those physicians whose practice it is to bleed, in cases of concussions from falls and blows, are either self-sufficient in knowledge, or else their minds have not kept pace with the acknowledged improvement of their science. Dr. Thatcher, author of the "American Dispensatory" (a warm advocate for the practice of bleeding), speaking of it under the head of the general treatment of fevers, says: —"A cautious and deliberate considera-

tion of numerous variant circumstances, is requisite in determining on the propriety of abstracting blood from the general system in fevers, since the diminution of that fluid, which is the immediate *support of life*, cannot be a matter of indifference to the constitution, if it be the most powerful means of influencing the vital action, so it is the most dangerous, when improperly employed; if the most effectual in diminishing excitement, it is the most apt to exhaust the vital energy. *We have no infallible index to direct us:* it is impossible, from the state of the circulation in the fever, to point to any certain criterion for the employment of the lancet; the state of the pulse is often ambiguous and deceptive. These circumstances require the nicest discrimination, as the result is often very different in cases seemingly analogous. A precipitate decision is fraught with danger, and a *mistake may be certain death.* Typhus, which is the fever most prevalent in our climate, under all its modifications and forms, is attended with great general debility, and, as exhaustion of vital energy soon ensues, it is obvious that, to diminish the quantity of the vital fluid, must be to increase that dangerous state of the system which accelerates the fatal termination. Various, therefore, are the circumstances to be taken into view, and great is the diversity of opinions to be examined, in order to a right decision of this difficult point in practice."

24, *Montague-place, Russell-square.*

(To be continued.)

FACTS EXEMPLIFIED IN ALLOPATHIC PRACTICE.

The mineral faculty are everywhere opposed to all botanic practitioners. This forms a wide scope for discussion. If an individual makes the least pretension to any kind or degree of medical knowledge who does not belong to the regular calomel faculty, they will endeavour to travel over him roughly

"With gig and horse in doctor style,
And strut and blow, death dealing with a smile."

Though destitute of any definite, fixed and regular theory to govern their practice, and involved in everlasting and irreconcilable controversy among themselves, they make common cause against Lobelia, cayenne, &c. In everything else, they disagree among themselves The medical kingdom, as it exists among the faculty, is overwhelmed with divisions, portentous of its dissolution.

It is very seldom that any two among the regular doctors can agree upon the mode of treatment for a patient, when called in consultation. They of course both want the patient, and both have their eyes fixed upon the recompense of new aid: besides, "horse flesh, &c., must be paid for." He who can make sure calculation of having the vantage ground, on account of some certain combination of incidents, will resolutely push himself a-head.

Dr. First was a gentleman of respectable acquirements among the regular order of physicians. He was engaged in attendance on Mr. Sickly, who had been suddenly attacked with sickness at the stomach, accompanied with laxity and pain in the bowels, extreme giddiness, weakness and vomiting. On his arrival he gave him a dose of calomel, and in two hours, a dose of opium. Some present, having a partiality for Dr. Second, he was strongly recommended, especially by a maiden lady of thirty-six, who esteemed him one of the most extraordinary woman-doctors in all the country. She had not a doubt but that, should he be called in, he could overcome without ceremony all difficulties, and administer prompt relief to suffering humanity.

Dr. Second was accordingly sent for post-haste. In the mean time Dr. First was modestly and attentively engaged with sundry patients in the neighbourhood. Dr. Second arrived, whip, hat and gloves disposed of appropriately; he took a turn or two across the room, summoning the genii of medical dignity to his aid, rapt in the contemplation of his own consequentialness, beyond the ken of vulgar apprehension, until he was called down from his tremendous elevation to notice earthly things, by the groans and agony of the patient and the importunity of his friends. Turning abruptly towards the sufferer, he seized him by the wrist, made a few inquiries, some of which were quite irrelevant, made a pompous dis-

play of his literary talents, in giving a loquacious lecture on the disease, and then, tipping the wink to Miss Loveall, they stepped a little aside from the company, and commenced a little private confabulation, but fraught with deep design.

Dr. SECOND.—"I am obliged to consider this a very bad case. I have much confidence in your well-tried friendship. He is in a very bad way. Your acquaintance and influence, under proper management, may be of much service. He is extremely dangerous. He will not live many days unless there is a change in his treatment. This is all-important. You understand me, madam (speaking low)—Heavens! Dr. First has this moment rode up! (several approaching them listening). "As I was saying, I do not approve the treatment: that is plain, honest matter of fact."

Miss LOVEALL (several listening eagerly).—"Indeed, doctor, I really think you must understand this man's case. I have known of your giving relief to many who were just as bad, and a great deal worse than this man. (Speaking a little louder and placing herself in a position to be moving:) If it was my own case, I should know what to do; I should certainly come immediately under your superior management and skill."

Dr. SECOND.—"I pay the most profound respect to the experience and judgment of those friendly ladies. You are all sensible of my medical standing. I anticipated your good opinion and preference. You ladies all believe that I can effect a cure, or, to say the least, greatly mitigate the pains and render him some temporary service. I can render him special service, provided, as a prologue to the whole business, Dr. First be dismissed from any further attendance in this case."

NURSE.—"Indeed, Dr. Second, we are constrained to put some confidence in your superior knowledge and skill. Miss Loveall has spoken of your *talents* in the highest strains of commendation, and we really should be pleased to hear your impartial opinion of Dr. First; that is, do you consider him a man of skill that can be depended on?"

Dr. SECOND.—"I suppose you must have heard my remark, that I was dissatisfied with the treatment in this case! I think, as I was saying, I can be of material service to the patient, provided you will be pleased to dismiss Dr. First. I make no disrespectful insinuations. You must know I wish to act honourably. We do not practise alike. I see plainly we could not agree. He would pursue a course diametrically opposite to what would be with me a *sine quâ non*. I do not wish to engage in any dispute, or quarrel with him. In this case I must question his abilities. You see it is with me as with the family: had they all been satisfied I should not have been consulted."

NURSE.—"Well, doctor, we all feel much concerned for the safety and well-being of the sick man, and we wish you to be plain and candid in all you say and do in this matter."

Dr. SECOND.—"To be candid, then, I never said that *Dr. First* was not much of a gentleman. He may be possessed of superior talents for aught I know or would insinuate to the contrary; but in giving calomel and opium—indeed, ladies, 'pon honour I profess to be master of a disorder like this—but—you know—the fact is I do not wish to be a preceptor to teach him, unless he would consent to pay me for my lecture; you understand me, ladies. He could not expect me to commit myself and wrong my own interest, and besides it would not be congenial with my own feelings. You can just inform Dr. First that you have employed me, presuming from my superior advantages—however—ah!—you well know how to state the case (turning to Miss Loveall)—you know yourself you would not wish to employ more than one physician—at a time."

Miss LOVEALL.—"Right, doctor, right. If I was satisfied with his *talents* and attention, one at a time would be my choice." (After a little contrivance to adjust the difficulty, Dr. First being dismissed, Dr. Second began to fumble over his pockets, and took out his little pills and powders, looked wise, and was preparing to make his address in his best style, when the nurse began to interrogate him thus):

NURSE.—"What kind of pills are these, doctor, in this paper?"

Dr. SECOND.—"These pilulæ are the pilulæ opiatæ of the Edinburgh Pharma-

copœia, sometimes denominated pilulæ thebaicæ."

NURSE.—"Allow me to inquire what kind of powders are these?"

Dr. SECOND.—"This, madam, is submurias hydrargyri sublimatum sive calomelas."

NURSE.—"Indeed, doctor, it does appear to me this half dozen of pills look, taste and smell exactly like opium, for all the world; and this calomelas, I do believe it is calomel. Why, sir, this is precisely the way Dr. First was treating this man."

Dr. SECOND.—"Ah! madam, let me make you acquainted with an important fact that will serve as a corrector of your judgment—I profess to have some skill in the management of these fevers. Dr. First goes on in the old-fashioned way, giving calomel and opium; no wonder he is so unsuccessful, and all his patients die! My scheme of practice is more modern; it is quite an improvement upon the antiquated plans of Dr. First."

NURSE.—"I know, doctor, you are a man of great learning and skill, and I really wish to understand this matter a little better; will you be so kind as to explain yourself, so that I can comprehend your views of the subject.

Dr. SECOND.—"Indeed, this plan of giving calomel and opium is an old-fashioned way of doing business. Calomel is the Samson and opium is the Hercules of medicine. Samson, though a man, and a great man, was but a man; but Hercules was a God, the son of Jupiter, and among the learned should always have the preference. My rule is to give *opium* and *calomel:* this, madam, is a modern improvement. If the patient will take my directions, he will do very well. I wish to have an exclusive management of the case myself, without any interference of Dr. First, with his calomel and opium."

NURSE.—"Indeed, doctor, we all know you are a learned man, have been to college, and passed all the examinations with great credit, otherwise we never should have sent for you; but, indeed, doctor, you seem to make a distinction where there is, to my simple mind, scarcely any difference. When I prepare supper for my children, one will cry, 'Mamma, I want *bread* and *milk*'—little Annie always cries, 'milk, bread, mamma'—with me it always amount to the same thing."

Dr. SECOND.—"I perceive, madam, you have never studied medicine. Here is what I have prepared for the patient—secundum artem."

NURSE.—"Well, doctor, how must this be given?"

Dr. SECOND.—"My direction is, this medicine be administered *pro re nata ætatis et symptomatum*."

NURSE.—"Really, doctor, you will please to excuse me, I am a person of but little learning, I hear everything you say, but I must confess I do not understand a word."

Dr. SECOND.—"Well, madam, we who have the supreme honour to be made familiarly acquainted with the technicalities of our medical colleges and universities, can sometimes enjoy the superlative felicity of condescending to accommodate our explanations of literary mysteries to the intellectual imbecilities of the ordinary circles of common life. Let me tell you then, explicitly and intelligibly, that this Hercules and this Samson must be regularly administered according to reason, age and symptoms."

NURSE.—"Excuse my ignorance doctor, I am willing to learn; but when and how, and how often must these medicines be taken?"

Dr. SECOND.—"Well, madam, here is a pill and here is a powder, these make one dose, which you will give him; *et repetatur post horas duas nisi alvus prius respondeat*."

NURSE.—"Doctor! doctor!! doctor!!! have mercy upon me. If such a learned man can inform me how this medicine is to be given, I will really endeavour to give it the best way I can—time is precious, something we know must be done immediately. Do be explicit and try and save this poor sick man. If opium and calomel can do more for him than calomel and opium, it is high time we we should be making the experiment."

Dr. SECOND.—"Well, madam, as I was saying, give these for a dose, and *repeat after two hours, unless the bowels are sufficiently acted upon by the former*, as I

told you before. I am weary with being so minute with my directions."

NURSE.—"I hope, doctor, that I understand you now. I shall give every attention to his situation in my power; but if the medicine evidently injures him?"

Dr. SECOND.—"Well, madam, I want you to do your best. I have been remarkably successful: not more than five out of six common cases of scarlet fever have proved fatal under my care; and those that have recovered have taken scarcely any medicine at all; such is its amazing efficacy. Of cholera patients, one in about twenty lived within the . . . . . what I consider the bounds of my practice, though I did not venture to visit many of them, they died so rapidly! I did not like to introduce it into my family! If those poor patients that have died, had but taken opium and calomel enough, the cholera never would have killed them."

NURSE.—"No, doctor, I think you must be right. It is my opinion that the opium and calomel that has been so lavishly used with these cholera patients, have destroyed hundreds that would have recovered, had they let such poisons alone altogether. It is very certain this man has the cholera—he was severely sick and purged—and we think it is a state of collapse, as you doctors call it, that is the matter with him now."

Dr. SECOND.—"Where's my horse? I must be going. If my wife knew I had been in a cholera neighbourhood, she would not suffer me to return! This is not very polite treatment; you ought to have mentioned this circumstance before! I must be going, I have scores of patients to attend to."

NURSE.—"Well, doctor, you are so much engaged, we will try and dispense with your services." Exit Dr. Second.

Miss LOVEALL (turning to those present)—"I esteem Dr. Second very much of a gentleman. He certainly is very much of a woman's doctor. If I ever should stand in need of a doctor to do anything for me, he is the man."

It may be laid down as a position which will seldom deceive, that when a man cannot bear his own company, there is something wrong.

HYPOCHONDRIACISM.

THE truth of the following remarks of Dr. Johnson will be confirmed by every one who will take the pains to test them by his own experience. They afford a lesson from which all may profit.

As it is easier to remove disorders in the beginning than when they have taken deep root, so it is very important, both to the patient and practitioner, to detect the lighter shades of what may go on, in the end, to confirmed hypochondriacism; than which there is not a more intractable malady incident to mankind. It is fortunate for the sufferer, when unequivocal disorder of the digestive organs is an early feature of the disease; for then his attention is directed to the root of the evil. It is also a sign that *physical* causes are operating deleteriously, and these can always be more readily combated than moral causes. But when the disorder in the stomach and bowels is not very prominent, or is wanting, and the malady shows its first approaches, through the medium of the mind, or of distant sympathies in the body, the real state of the case is seldom ascertained till serious mischief is done. Whenever, therefore, a man finds any alteration in the temper or moral feeling, there being no adequate moral cause, he should suspect some *physical* cause. Let him, then, narrowly watch the state of these deviations from the natural temper of feelings; after free living, and after abstinence; after complicated dishes, and after plain food; after wine, and after water. If he does not find an increase or diminution of his mental or corporeal ailments, according as he leans to one side or the other of these points of regimen, then I am no observer; even if the original causes be purely of a moral nature, as, for instance, severe losses in business. Still the mental despondency is aggravated by the morbid sensibility of the stomach; and this morbid sensibility is mitigated or exasperated by the quality and quantity of our food and drink. Thus a man loses by speculation a certain sum of money, which makes a considerable impression on his mind, and depresses his spirits. After a while he finds that time, instead of healing the wound which

misfortune had inflicted, had increased it; and that which he could look upon with some degree of fortitude in the beginning, is now become such a source of despondency, that it haunts him by day and night, and is for ever uppermost in his thoughts, and even in his dreams. He finds, moreover, that some days he can view the misfortune with courage, and spurn the idea of giving way under it; while on other days it presents itself in the most frightful colours, and he seems completely deprived of all fortitude to resist its overwhelming influence. This is a true copy, of which I have seen many originals, during the late commercial distresses and ruinous speculations. What does it teach? Why that moral affliction was borne with comparative ease till the digestive organs were impaired through the agency of the mind, when reaction took place, and impaired, in turn, the mental energies. But how are we to account for the fact, that one day the individual will evince fortitude, and the next despair; all the attending circumstances of the moral evil remaining precisely as they were? It can be clearly accounted for from the occasional irritation of food or drink exasperating the morbid sensibility of the stomach, and thereby reacting on the mind. The temporary irritation over, the mind again recovers a degree of its former serenity, till the cause is reapplied. I was led to this solution of the enigma some years ago by observing that a very aged hypochondriac was every second day affected with such an exasperation of his melancholy forebodings, that he did nothing but walk about his room, wringing his hands, and assuring his servants that the hand of death was upon him, and that he could not possibly survive more than a few hours. Under these gloomy impressions he would refuse food and drink, and, in fact, gave himself up for lost. The succeeding sun, however, would find him quite an altered man. The cloud had dispersed, hope was rekindled, and the appetite for food and drink was indulged in to excess. Next morning all would again be despair, and nothing but death could be thought of. So he went on as regular as light and darkness. But if, on the good day, he would confine himself to a very small portion of food, and the *bottle* was unopened, the next day would be good also. This, however, was seldom done, for as soon as he felt a respite from his miseries, procured by one day's abstinence, he returned to his usual indulgences, and again irritated his stomach and bowels, and through them reproduced the "blues" in his mind.

PROGRESS OF MEDICAL BOTANY.

Mr. Editor.—Sir,—I feel a deep interest in the success of Dr. Coffin's Medico-Botanical System and cause. I do not profess (as the learned would say) to be an "oracle of science," but I have enjoyed some opportunity for useful information. I have examined your system; I think I understand it; I have witnessed its extraordinary effects when reduced to practice; I have known this mode of practice to prevail so powerfully in the removal of disease in its most afflictive forms, that I cannot be sceptical. Nine out of ten—and I believe I may safely say, ninety-nine out of a hundred—of those who are acquainted with the system, who really understand it, are not only satisfied, but they really admire the wisdom of the doctor's discoveries, and numbers acknowledge the Providential hand that has guided his researches. I am of opinion, that his system must have the effect of exciting a far more general attention to medical subjects. People used to think that nothing could be done in religion without the priest; they could not draw an indenture or make a will without a lawyer; and if they had a pain in their toes, they must send for the doctor. Whatever those wise men would say was binding on their minds, and they would scarcely admit of an appeal from their judgment. In many places those days of superstition and servile, obsequious submission to learned dictators of thoughts and actions, are nearly gone by, and the crown fallen from the heads of those arbitrary violators of human rights and privileges.

Dr. Coffin's system of medicine, has gone powerful lengths in putting down the deceitful, abusive spirit of medical

arrogance and superstition. Not all the vituperation, spite, and slanders, of the learned Dr. Letheby has been able to throw a slur upon his system (see Dr. COFFIN'S able refutation of Dr. Letheby's attack upon the doctor, to be obtained at 134, High Holborn); not all the learning and knowledge of the regular faculty, backed by their prejudices and wishes, have been able to prove our Lobelia Inflata—I say ours—to be deleterious. It has come out of the furnace like gold, seven times refined, only the brighter for its persecution; and as it is with Lobelia, so it is with every part and the whole of our system; and I am morally convinced, as I have been physically, that it is a positive blessing to mankind.

I have never known Dr. COFFIN'S medicine to fail, where it has had anything like a fair chance. Some patients may fail for lack of perseverance, or confidence in the means employed; others by unbelief, impatience, and superstitious fears. Some are frightened at the name of Lobelia, and the steams of warm water, because they have heard of so many terrible stories about people having been murdered that way; yet these persons will swallow mercury as though it was sugar, hold out their arms to be scored with a lancet, and consent to wear a blister as large as a small waiter, and think it all a harmless, innocent way of doing business. Your medical works and talented periodical must incontestably enlighten the public understanding, to expose these dirty impositions, and spread the knowledge of the efficacy of the doctor's system of Medico-Botanical practice. Every beneficent man, whose information on the subject is equal to the task, ought to devote a portion of his time and talents, to assist this great cause. I find a goodly nnmber are beginning to rouse to a sense of duty in this respect. I have no doubt but that many, very many more, will follow their bright example.

Coffinites should be careful to be well supplied with the medicines the doctor directs them to use; and to use them in the way he directs, they should study the system until it becomes as familiar to them as "household words." Instead of teasing and fretting when any one is sick, to find out and try some new remedy, that some one has heard of and recommended, let them apply themselves to the doctor's "Guide to Health," and be guided by it, and they will not be deceived or disappointed. One of my neighbours said he should believe more in Dr. COFFIN, if he had recommended a greater variety of medicines. I asked him how many different medicines does the doctor recommend? He answered, "He did not know."—"Well," I rejoined, "let me recommend you to get thoroughly acquainted with all his medicines, and how to prepare and administer them—how to manage the whole concern in relation to a patient, exactly as he has prescribed, and then if you fail of success, it will be time enough to complain."

We are not to use his "Guide to Health," as some do their Bible—under the pillow to protect them from the nightmare. No: there is no such nonsense about our system: it tells its own plain, philosophical story. The doctor states the facts in relation to his practice. I have proved the worth of his system in my family for several years, and could cite you a number of cases as important, remarkable and surprising as any that have come under my notice in your Journal. My paper shows me I must come to a close. I shall, therefore, only request this to be admitted to a place in your Journal, so that it may obtain a patient reading; and trusting that its suggestions may be beneficial,

I am, sir,
Yours very respectfully,
A COFFINITE.

THE INFLUENCE OF WHOLESOME DRINK.

(Continued from page 131.)

IN a world that is so overflowing with perfect contrivance as this one, which serves as man's dwelling-place, it is not at all likely that this curious white powder is made by the tea-plant in such abundance—twenty-five thousand tons of it at least turned out on the Chinese hills every year, and scattered thence to the four corners of the world—without having some very good work appointed it to do. You will not wonder, therefore,

that inquiring men, who know that all these thousands of tons get mixed in the ordinary course of ordered events with the flesh and blood of human bodies, should be very curious to find out what they are capable of doing there. Another very surprising fact also tends greatly to strengthen this curiosity. The coffee-tree grows not in China, but in Ceylon, in Arabia, and in the West Indies. The cocoa-tree flourishes on the other side of the American continent, in Mexico and Peru. Yet the coffee and cocoa plants make out of the East and West Indian, the Arabian, and the South American soils, vapours, and sunshine, exactly the same kind of white powder that the tea-plant manufactures on the Chinese hills! Plants so unlike in external appearance, and living in districts so remote from each other, first get to be used in similar ways in the preparation of beverages for millions of the human race. Then curious and prying inquirers find that there is one principle present in all these beverage-yielding plants. The common sense inference is plain: It is most likely that it is this one substance present in all the three different plants, which has led to their being employed so generally in the preparation of drink.

The experiments which the chemists have tried with this white powder, with a view to the discovery of the action it may be able to exert upon living bodies when taken into them, appear to prove simply this:—When swallowed in proper quantities it has a most wonderful sustaining power. It seems as if it enabled food which is taken with it to go one fourth part as far again in supporting the strength of the body, as it would without the addition; and if it does this, it is certainly not because it adds an equal amount of bulk to the food, for a trifling pinch of three or four grains of the powder, as much as could be laid on a silver fourpenny piece, is enough for the purpose during one day. If a healthy man has half a pound of bread taken from his daily meals, and three grains of the white powder of tea added in its stead, his body does not miss the bread. The white salt of tea, coffee and cocoa seems to possess the power of relieving the body from the effects of wear and waste, and so of decreasing its requirement of food.

This extraordinary substance also produces another very remarkable effect on the living body, when it is swallowed in these small quantities. It cheers and enlivens, at the same time that it aids in supporting the bulk and strength of the frame. The chemist finds, when he examines its precise composition, that it is even more adapted to supply the substance which the nerves and brain lose by wear and tear, than to diminish the loss the flesh undergoes from the same cause. The white powdery ingredient of coffee and tea is most probably a rich and strong nerve-food, provided for the support of the nervous structure and brain, rather than for the nourishment of the flesh; it is nerve-making substance rather than flesh-making substance; and it exerts some mysterious and very extraordinary influence of lessening the waste of wear and tear in the structures of the living frame, without stopping their useful activity in the same degree.

In order that the nature and suspected action of this white powder of tea, coffee, and cocoa may be kept fairly in the mind, it may be well, instead of speaking of it by its learned name, to call it the nerve-food ingredient of these beverages. Some further remark might very well be made touching the probable reason why these beverages, thus rich in a nerve-strengthening food, should have come into such general use in modern times, although scarcely employed in remote ages. But it may, on the whole, be best merely to say, that it is quite in accordance with the general management of the Gracious Creator who rules over man's world, that the additional wear and tear of nerve and brain, which of necessity follows from the increase of numbers in the human race, and from the advance of the arts and civilisation, should have had some counteracting compensation provided for its relief.

The best foods and the most valuable medicines are all as injurious as poisons, when they are taken in great excess. Every blessing which God has furnished to man is intended to be used, and not to be abused. Men are expected to learn

how to employ them well, and how to avoid applying them improperly. The nerve-food ingredient of tea and coffee is no exception to this universal rule. When three or four grains of it are taken in the day, it refreshes and sustains; but if as much as ten grains are taken in the same time, it makes the blood flow with great rapidity through the supply-pipes of the body, and produces an uneasy feeling in the head, continued watchfulness, and trembling in the limbs. These effects, however, it must be remembered, are the results not of the use, but of the abuse of the substance. The Chinese account for the sleep-banishing power of tea, when taken in excess, in this way: They say that many centuries ago there lived in the Flowery Land a holy man, who desired to spend his entire life in watching and prayer, but who was constantly catching himself napping in spite of every effort to keep himself awake. Getting at last to be very angry with the eyelids, which would not keep open, he one day determined that he would settle the business effectually by cutting them off. He put his shrewd plan into effect, and cast the offending eyelids aside upon the ground. The eyelids, however, directly took root and grew up into two fine plants, which bore leaves, having the form of eyelids, and being fringed with hairs, like eyelashes, round their borders. The plants proved to be tea-plants, and the leaves of the descendants of those plants now make amends for the offences of their first parents, the holy man's eyelids, by furnishing a drink which keeps sleepy people awake.

Tea contains several other ingredients besides the nerve-food just now described. It has in it something which gives it the very fragrant smell, and delicate, agreeable flavour, tea-drinkers learn to value so highly. This fragrant principle, however, does not exist in the fresh tea-leaf. It is produced by a new sorting and arranging of the ingredients held in the fresh leaf, during the process of drying and roasting. The more carefully the tea is dried, the more delicious its taste and scent become. But tea has also an astringent matter in it, something like the astringency of the mouth-drawing sloe-leaf; this is not very easily dissolved from it by boiling water. It is only taken up from it after it has remained in hot water for a very long time. Tea contains too a large amount of a true flesh-making substance, of a nature very closely resembling that of the meal of beans or peas. This is not at all dissolved in boiling water. It has been related that when the Queen of England first received her present of the precious tea, the royal cook, not quite understanding what ought to be done with it, boiled it well, and then dished up on the dinner table, in the same way as spinach and other vegetables. If it be true that the Queen's cook did treat the tea in this way, the plan was not altogether so absurd as it seems. Tea-leaves, well cooked, and eaten after this fashion, would prove quite as wholesome and nutritious as beans and peas, the excess of the more active ingredients being removed by the boiling water, and the nourishing meal being principally left behind. Not more than a fourth part of this valuable production, tea, is really unnourishing wood and ash.

When a beverage is prepared from tea, if it be the object to get their finest qualities from the leaves, without regard to expense the best method of proceeding is to use a large proportion of tea, pouring on as much boiling water at once as will make up the quantity required, and taking it off again after the tea has been standing about ten minutes. The water then dissolves principally the nerve-food ingredient and fragrant flavours, and leaves behind the coarser meal and astringent parts. When, on the other hand, the object is to get all the nourishment out of the tea which it can be made to yield, about a quarter of a small teaspoonful of carbonate of soda should be put into the water with the leaves, and the whole should be allowed to stand, covered up closely in a warm place, for a longer time. By this management, the nutritious meal and other coarser ingredients are partially dissolved into the water, as well as the finer parts. The addition of sugar and milk to the beverage of course increases its directly nourishing powers.

Half an ounce of good tea contains

about three grains of the active nerve-food ingredient. This therefore is quite as much as any individual should use for the preparation of beverage for a single day. It is also somewhat important how even this moderate quantity is employed. Much of the bad effect which has been attributed to tea, really has been due to the way in which the tea has been drunk, rather than to the direct influence of the leaf. People commonly swallow many cups of it in rapid succession, and pour it down their throats as hot as they can bear it. This is all very unreasonable and wrong. As a rule, never more than a couple of small cups of tea, made from about two drachms of the leaf, should be taken at one time, and even these should not be drunk until the beverage is so far cooled as to cease to give an impression of actual heat to the palate and stomach. The stomach itself makes things warm that are submitted to its influence; there can, therefore, be no harm in warmth. Warm things are not weakening to the stomach, as some people conceive. It is only hot things that are weakening, because they force and overgoad the activity of the organ, and then leave it weary and exhausted from the forced work it has been made to perform.

COFFEE is the berry of an evergreen tree, which grows to a height of about twenty feet, and which is largely cultivated in Arabia, Ceylon, Jamaica, and the Brazils. The berry is plucked when sufficiently ripe, and carefully stored away It is principally composed of a sort of hard paste or meal, similar to that of the almond or bean, which is destined by nature to form the earliest nourishment of the young germ contained in the seed. When this meal is exposed to strong heat, it is partly turned into the fragrant flavour which is familiar to all drinkers of coffee. Hence coffee is always roasted before it is employed in the preparation of beverage. The process is best accomplished by placing the berries in a hollow cylinder of iron, kept turning rapidly round over a clear fire until they put on a light chestnut colour, when they require to be cooled quickly by tossing them up into the air. Roasted coffee contains, besides its fragrance, the white nerve-food already alluded to in speaking of tea, a remnant of the nutritious meal, unaltered by the roasting, and a slightly astringent matter. Its nature is, therefore, singularly like to that of tea, and its action on the living frame is precisely the same. When drunk in moderation, coffee supports and refreshes the body, and makes the food consumed with it go further than it otherwise would. Coffee is, upon the whole, less astringent than tea; it also contains only half the quantity that tea has, weight for weight, of the active nerve-food. Hence it can be taken stronger than tea, and so has more of the other nourishing ingredients in any given bulk. A cup of strong coffee generally holds about the same quantity of the active nerve-food as a weak cup of tea.

(To be continued.)

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The Botanical Journal and Medical Reformer is published Fortnightly, at No. 134, High Holborn, London, where all orders must be addressed.

COFFIN'S
BOTANICAL JOURNAL
AND
MEDICAL REFORMER.

"Human experience, which is constantly contradicting theory, is the great test of truth."—Dr. Johnson.

No. 258—Vol. VIII. SATURDAY, APRIL 3, 1858. Price 1d.

THE GLEANER, No. 9.

It is admitted by Doctor Thatcher, as we quoted at the conclusion of our last article, that there is no certain criterion whereby we can determine the propriety of bleeding; and in this sentiment we most cordially agree with him, for it appears to us impossible to point out the propriety of a position which has no propriety in it. He says also, that it (bleeding) is a dangerous practice; that many circumstances are to be taken into the account, in deciding the point; and from what he further tells us, we would think, that even the best qualified and most experienced might sometimes make a mistake, come to an incorrect conclusion, and thus hasten the fatal termination. But if this language of Dr. Thatcher's be true, respecting the obscurity in which his *supposed* propriety of bleeding is involved, can we reasonably suppose, that the superficial knowledge, and of course non-experience, of the young medical fops, or rather self-styled *regulars*, who are poured forth upon the world, with their unbounded confidence in calomel and the lancet, are sufficient to direct them to a proper decision of this point of practice? No; they are not qualified to decide, according to Dr. Thatcher's own sentiments. Our readers will, we think, conclude with us, that physicians and surgeons, especially the young, who have not yet learned the bad effects of bleeding by experience, do frequently make "precipitate decisions which are fraught with danger and mistakes which may be certain death!" But what must be the consequence of that indiscriminate use of the lancet and calomel, which is practised, particularly in the southern countries, by those inexperienced young men, some of whom, as far as experience goes, are as ignorant of the system as a native African is of astronomy or navigation? What a sacrifice of human life and constitutional strength! This must be the inevitable result. Then we ask of our candid reader, Will you adopt the practice of bleeding, and for any little indisposition which you may feel, run the risk of having part of your very life taken from you?

If physicians will persist in a practice which is so destructive to life, and so repugnant to reason and common sense, will you not rather think and act for yourself? We shall here give a few remarks on the subject of blood-letting, made by the learned and experienced Dr. J. F. Daniel Lobstein, of the Medical Faculty of Paris, late Physician of the Military Hospital and Army of France—"'For the life of the flesh is the blood,'" Lucretius xvii, 21.—"A long time has elapsed since I determined to publish my remarks on the pernicious effect of bleeding, which not only during that time, but especially at present, is considered as almost a universal remedy, and frequently resorted to as a restorative in the slightest indisposition: notwithstanding the direful consequences attendant on such practice, it continues to be the main pillar of the medical profession. *Were bleeding and mercury totally prohibited*, a great many physicians would find themselves in the inextricable mazes of a sad dilemma, *their time easily disposed of.* It is astonishing to find that so many

persons, and still more astonishing that so many physicians, have fallen into such extravagance. Blood, as the most precious matter for life, is lavishly squandered where there is no necessity for. *Yes, often without knowing for what purport!* My remarks shall, therefore, convince my fellow citizens, that, so far from blood-letting being beneficial, it is productive of the most serious and fatal effects. Should I contribute by these remarks to save more lives in future, and arrest this evil practice, I would feel that gratification which arises from the consciousness of having performed a good act. *How much is it to be regretted that sueh a scourge of humanity should exist!* During my practice of twenty-seven years, what extravagance of blood-letting have I seen! How many thousands of our fellow creatures are sent to an untimely grave! How many families deprived of their children! How many husbands of their wives! How many wives of their husbands, who have fallen victims to bleeding! And the same may be said of mercury.

"We no more count the loss of blood by ounces, but by pounds. Each headache, each indisposition, is, among physicians, quite sufficient pretence to say, '*You must be bled.*' In the blood is the human life; in the blood is placed the strength of the whole organic life; without blood there is no heat, no motion of the system; yes, take away from the brain the blood, and the self-cogitative powers will be instantly extinguished. Is it not evident that the most robust persons are such, because rich in blood? Certainly it is not such persons who are attacked with nervous weakness. Strength and blood stand always in direct relation. He who takes blood from the patient, takes away, not an organ of life, but a part of life itself! In burning fevers, it is by numerous experiments proved, that the most simple fevers, by bleeding, become nervous and putrid fevers, of which I can attest many such instances. In pure gastric fevers, bleeding is always pernicious; it does not vacate the diseased matter which is situated in the intestinal canal, and can only be removed by gastric remedies; while bleeding, in such cases, vacates a part of the strength which is necessary to be acted upon, in order to expel the disease. I desire it not to be forgotten, that, in regular gout, the inflammation is nothing less than a crisis, a local metastasis, by which a dangerous stuff from the internal parts is thrown to the external. Nothing takes more of the necessary strength away than bleeding; and the conclusion is, either the attack of the gout disappears directly, and the disorder is thrown internally, or to some dangerous part, as the head, the lungs, &c.: hence arise inflammation of the lungs, apoplexy, or inflammation of the stomach. In nervous affections, bleeding is no remedy; the nervous affection itself has, from its nature, with the blood nothing common; on the contrary, it arises from a defect of the blood and of weakness. I have seen, during my practice, many ladies with nervous affections, and of such, four highly respectable, whose physician I had the honour to be. Their former physician, in all slight indispositions, ordered them to be bled; whereby they became more and more nervous, and those had no nervous attacks when I stopped the bleeding. I treated in a similar manner a very respectable lady, who was attacked with a very serious pleurisy, and I saved her without bleeding, which to many was very astonishing. It is alleged that the climate, particularly warm climates, requires in all indispositions to be bled; and, secondly, the people are accustomed to be bled. Let us examine these reasons. 1st. How comes it to pass, that, during many years, I can prove, by a great number of persons who have been treated by me, and in the same diseases in such persons were treated by physicians who employed calomel in great quantities, blisters and blood-letting, cups and leeches to supererogation, and of all those persons who have not fallen victims to such treatment, their convalescence was very long before they could attain a little strength—ladies who were very nervous, tormented with hysteric spasms—the former recovered by my treatment in a very short time, and the latter, as I dispensed with the use of bleeding, lost their spasms and became directly better? Where I have not employed bleeding, such persons by my treatment have recovered in a very short time. If, therefore,

I have neglected using the lancet where it was said or held to be necessary, all these persons should have died, *but they recovered sooner.* 2nd. That people are accustomed to be bled. This is true; but what is the true reason of it? Whether is the patient or the physician? I believe, to speak with justice, it is the latter. What does the patient know of what is convenient for him? He complains of headache, cramps in the stomach, colic, dyspepsia, &c.; he sends for his physician, in whom he has confidence; he thinks that all that is ordered for him be for the best; and the doctor, after feeling his pulse a little strong, declares to him his sure sentence—'You must be bled;' and thus is a habit of bleeding established. I know very many cases wherein a physician has accustomed his patient to be bled four times a day! but time proved the result of such treatment by the death of a great number of such patients. I am certain that all such persons who have been bled a great many times in their lives, their constitutions must become weaker every year; but their repentance will often be too late. The duty of a true physician, who is not an egotist, is to answer to the confidence of his patient, to recover him as soon as he can, and not, by weakening remedies, prolong the treatment, especially *if the patient is able to pay*, thereby to ensure to him a great number of visits, and the patient, by this intention, afterwards falls a victim to the avariciousness of the physician. How many patients have, perhaps, been treated with such an intention? If the physician can persuade his patient to be bled freely—if he do not soon die under such treatment—nevertheless his constitution is enfeebled, and becomes weaker every year; and thus the patient is obliged frequently to call for his doctor, who has the pleasure at the end of the year to have a great many visits inscribed to his patient. Such a treatment I shall never undertake, notwithstanding different physicians would persuade me to do it. *The quickest recovery of my patients shall always be my greatest satisfaction.*"

The above are the words and sentiments of the distinguished gentleman whose name we have given at the commencement of the above extract. We give them as his words, and we leave our readers to make their own comments upon them, and we have only to regret that Dr. Lobstein does not give his own treatment of disease: not but what we think—nay, know—that our simple system of Medical Botany will answer every purpose for which the lancet can be used, and that too without the debility and prostration so graphically described by the learned doctor. We know not what practice he pursued, as we have said above; but for a man educated in the old school of blood-letting and mercury, one who against early prejudice and popularity has come out boldly and independently, in the cause of truth and humanity, we think deserves all praise. When a man is thoroughly convinced that he is acting in a bad cause, it is the surest proof of his goodness and magnanimity to come out and enlist in a good one. We shall now bring our very long treatise on the important subject blood-letting to a close, and shall feel that, if we may have thrown any light that will benefit our fellow creatures, we shall be more than rewarded.

24, *Montague-place, Russell-square.*

TRIUMPHANT ACQUITTAL OF MR. LACEY, DR. COFFIN'S AGENT FOR SHREWSBURY.

A MORE marked example of collusion for the ruin of an individual has not come under our notice than the dead set certain medical men of Shrewsbury, who, from their standing in society, their *imputed* education and medical attainments, joined to that goodness of heart and benevolence of mind which ought to characterise the profession, have made at our experienced and respectable agent, Mr. Lacey. A calm, serious and unprejudiced consideration of the case will fully prove, that, however efficient they may be thought in the above ennobling qualities, they are by no means *deficient* in spite, malevolence and persecution, clearly developed in all the circumstances attendant upon the late Coroner's inquest at Shrewsbury, detailed in the "Shrewsbury Chronicle" of the 5th and 13th of March inst., on the body of Mr. Thomas Ward, of that place.

The *exemplary Christian spirit* evinced

by the said medical men, the Coroner and others concerned in the business of the inquest, joined to the apparent determination to hear only one side, in order to get up a case against Mr. Lacey, must certainly wonderfully redound to their credit, their impartiality and their veracity; in proof of which we will give an epitome of the one-sided evidence, with observations upon each. And first on the list stands

Mary Lewis, who deposes as follows:—Thomas Ward had been ill since Christmas, and was attended by Messrs. Pidduck and Fenton. Five weeks prior to the 16th of February Dr. H. Johnson was consulted, and attended the deceased for a month, less a day. He not getting any better, Dr. Johnson was dismissed, and Mr. Lacey sent for, who examined the deceased, and stated that he was labouring under inflammation of the liver, which produced irritation of the stomach, and that caused the vomiting. Mr. Lacey sent some medicine, the first dose of which stopped the vomiting. Mr. Lacey called twice most days, and when patient died was present for two hours; the deceased notwithstanding continued to grow weaker and weaker till he died. On the Monday night before his death his breathing was difficult.

Next comes Mr. James Bratton, surgeon, who was sworn.—Made the *post-mortem* examination, and relates his discoveries; finding the abdomen, the vessels of the mesentery, mesocolon, stomach, duodenum and colon very much enlarged, and full of dark blood: stomach contained about half a pint of thick, greenish-brown liquid, and put by for further examination. The vessels distributed over the stomach were much enlarged, and distended with blood: the mucous coat had several vascular patches—the pyloric end was thickened—hypervascularity near the pylorus and the first few inches of the duodenum. The colon was unusually dark-coloured outside, and vessels greatly enlarged. Its mucous coat was in some places slightly abraded; also one very large ulcer, and several smaller ones. Heart rather large—rounded, and rather hypertrophied. Both lungs were excessively congested. The bronchi everywhere full of frothy mucus, to the smallest divisions. The posterior lobes of the lungs were almost solid, nearly hepatised. *The brain was healthy.* In my opinion the *cause of death* was *inflammation of the lungs.* The liver was quite healthy. The deceased ought to have been blistered, leeched, and bled in the arm, which would have prolonged his life. The fatal and active disease was altogether *ignorantly overlooked.*

Mr. Thomas Cooke Ward deposed that he saw deceased last alive on Wednesday, 24th ult., who was decidedly worse than on a previous visit. Lacey told me my cousin had active inflammation of the stomach, and chronic inflammation of the liver. My cousin said he thought Lacey had done him good, for he had *stopped* the *vomiting.*

Dr. Henry Johnson.—I attended the late Thomas Ward, and saw him last on Monday, the 8th ult. On his first coming to me *I thought his complaint biliousness*, for he had intense headache, he vomited, and had a violent pain at the back of his head. I gave him ordinary aperients, but the symptoms became more urgent, so that he threw off almost everything. Sore throat took place, and he had frequent sickness and vomiting, with feeble pulse. The purgatives brought away a large quantity of dark substance, and *I thought he was better*, but the *sickness returned.* The sore throat had gone when I left him. I attended the *post-mortem* examination. In my judgment Thomas Ward died from disease of the lungs. There was an ulcer formed in the colon, or *some other part of the bowels.* There ought to have been marks of leeches or blisters on his chest, if the case had been properly treated. In the fluid contents of the stomach I found a small quantity of glass or flint, also what I think to be particles of black pepper, as well as vegetable fibre. The appearance of the stomach and bowels *might* have been produced by the remedies applied; *but I can't tell.* Found no mineral poisons. I should have depended very much upon counterirritation. When I attended he did not suffer from chest affection. In reply to the Coroner, witness said there was no complaint of the lungs when he attended deceased: the lungs were red and solid, like liver; nor did he think there were any ulcers formed.

This concluded the evidence.

The Coroner then proceeded to sum up the case to the jury. It was quite clear from the evidence of Mary Lewis, who lived in the same house with deceased, and was with him up to the time nearly of his death, that deceased was under the care of Lacey, who administered medicine to him. Lacey had stated to the witness Thomas Cooke Ward, that deceased was suffering from active inflammation of the stomach and chronic inflammation of the liver; but it was quite clear that was not the cause of his death, as the *post-mortem* examination showed that the cause of death was inflammation and congestion of the lungs. There appeared to have been no remedy administered by Lacey for that. As he (the Coroner) stated to the jury on a previous evening, if a man, for the sake of gain, took upon himself to administer remedies which proved wholly unsuited to the case in hand, and the death of the patient was thereby accelerated, that was manslaughter. And they might go further and say, that where an ignorant man like Lacey, who could hardly be considered qualified to distinguish one acute disease from another, treated a man for one disease and he died of another for which he was not treated, the person so administering was guilty of manslaughter. Then with respect to the analysis, they had the testimony of Dr. Johnson that the treatment adopted was not such as was suited to the complaint under which deceased was labouring. Mr. Lacey was an agent of Dr. COFFIN, whose chief remedies were pepper and Lobelia Inflata, or Indian tobacco. After explaining the peculiarities of the latter, the Coroner proceeded to say, that it produced exactly the same appearances in the mucous membrane of the stomach and bowels as were found in the late Mr. Ward. The great question was, whether the green woody fibre really was not the green woody fibre of Lobelia Inflata. The medical men could not swear what it was, but there was little doubt it was Lobelia Inflata. If the jury thought Mr. Ward's disease had been properly understood and properly treated by Mr. Lacey, their verdict would be one of acquittal. But if they believed the medical testimony and the evidence of the *post-mortem*, which proved that deceased was treated for a disease under which he did not labour, and was not treated for the disease from which he was suffering, and that his death was caused or hastened by such conduct on the part of Lacey, then their verdict would be one of manslaughter.

The jury, after a short deliberation, returned an unanimous verdict of manslaughter against John Lacey.

A TRUTHFUL DETAIL OF THE CASE.

On Monday, February the 15th, 1858, Mr. Thomas Ward sent for Mr. Lacey, who waited upon him and found him very ill. Mr. W. stated that he had been attended by Dr. Henry Johnson for about a month, yet daily getting worse, during the whole of which time he had vomited up everything he took, whether food or physic, not being able to keep anything on his stomach, besides suffering from a most distressing hiccough, and he wished Mr. L. to try what he could do for him, mentioning that since he had sent for Mr L., Dr. Johnson had again called, and given a fresh prescription, changing the medicine. Mr. W. also asking Mr. L. whether he thought the medicine prescribed was likely to do him good, Mr. L. said "he could not tell." Mr. W. rejoined, "Well, give me your opinion as to which mode of treatment will be best, yours or his." Mr. L. said, "No! If you do not know how to act, my advice is, consult your friends as to what is best to be done, then, if you decide upon having anything from me, send down to my house; but if I do not hear from you, I shall conclude that you will go on with Dr. Johnson. I shall not take any answer now, as my presence may influence you in your choice." Mr. W. then asked Mrs. Lewis her opinion: she would not give him any, but advised him to consult his relations. Mr. Lacey then took his leave.

In an hour or two after this, an elderly lady, whom Mr. L. did not know, called on him with Mr. Ward's compliments, and that he had made up his mind, and would be glad for Mr. L. to send him such medicines as Mr. L. considered necessary. Mr. L. sent him a mixture which cured the vomiting upon taking the first dose, and everything which Mr. W. took remained, except one morn-

ing when Mr. W. took some coffee, which came up, since which time there have been no recurrence of the sickness. Mr. W. continued to improve slowly during the week. On Sunday two friends called to see him, and were surprised to find him so much better. On Monday morning Mr. L. again visited him, and he was still going on favourably: he sat up an hour and partook of a little dinner. On Tuesday evening Mr. L. called, and, to his great surprise, found he had contracted a very severe cold and cough, and was informed by his nurse, that on the previous day, after Mr. L. left, Mr. W. sat up for about an hour and a half by the fire, *directly opposite to the room-door*, which he *would* have *wide open*, and although she remonstrated with him very strongly, telling him the consequences she feared would result from it in his weak state, he would not allow the door to be *shut:* he retired to bed as usual, but it soon became manifest that he had taken cold. About eleven or twelve o'clock the same night, a violent and distressing cough seized him, the violence of which kept him awake all night. His nurse was away from him for a short time during the early part of the morning, and on her return to his room she found a quantity of blood on his face, nightdress, and bedclothes, his handkerchief was also wet with blood. Mr. W. told Mr. L. the blood came from his nose during a violent fit of coughing, but *he took all the blame upon himself*, acknowledging the caution his nurse had given him about the door, and regretted its not being shut. Mr. L. soon alleviated his cough, but on Wednesday morning his chest was very much charged with phlegm, but by the continued use of expectorants and sudorifics, he parted with a great deal of it. Mr. L. was with him much that day, using the usual means for removing the fresh inflammation, &c.; but in consequence of his increased weakness, with very little avail; the same evening (Wednesday) he died, in Mr. L.'s presence, without the least motion, sigh or groan.

His head was never right after the discharge of blood from it in the morning before he died, he always appearing sleepy and confused. Mr. L.'s opinion, from the manner of his death, is, that Mr. Ward died from effusion of blood on the brain. Mr. Lacey has understood that the head was never opened at all, although Dr. Johnson swore the brain was healthy. Of course Mr. Lacey does not mean to say that *that* was the only cause, because there were now other circumstances combined, all tending to the same end. The former inflammations were entirely at an end, and he had lost all his pain several days before he died.

(Signed) JOHN LACEY.

REMARKS ON THE EVIDENCE.

Mrs. Lewis, in all probability, from her position in the house, must have known all that transpired. Why, then, did she not testify to the fact of Mr. Ward's so indiscreetly insisting upon the room-door being open, in defiance of the remonstrances of the nurse? Surely she might as easily have done this as at the adjourned inquest to recollect that on the Monday night Mr. Ward's breathing was difficult. Common honesty and proper feeling towards our fellow creatures demanded this, and in common justice she had no right to withhold any facts that might have been in favour of the accused.

Mr. Bratton, among other things, swears that the brain was healthy. Now we solemnly ask him whether he opened the head of Thomas Ward, to examine the brain. We are credibly informed, that the head was not opened. If so, James Bratton, Esq., surgeon, is a perjured man, for he ought not to have sworn to that of which he was not cognizant.

Thomas Cooke Ward's evidence, one-sided as it was, proves the great attention Mr. Lacey paid to the case.

Now for the evidence of the head physician of Shrewsbury, Dr. H. Johnson, who deposed that he thought Thomas Ward's complaint, when he first attended him, to be biliousness. If so, was the liver healthy? If not, did the long sickness, vomiting &c., under which T. Ward suffered for the twenty-seven days Dr. J. attended him, prove favourable to the liver? We should think not; yet at the *post-mortem* examination, the liver was declared healthy. If so, who restored it? Not Dr. Johnson, but Mr. Lacey, for his first dose of medicine stopped the vomiting

when all Dr. Johnson did, could, or would do failed. The learned doctor also makes this remarkable assertion, that "there was an *ulcer* formed in the *colon* or *some other part* of the bowels." This being so absurd, we were inclined to believe it a mistake of the printer, but *not* finding it contradicted by the doctor when his deposition was read over, we must take it for granted. Now, reader, only reflect: here is an M.D., the reputed head physician of Shrewsbury, present at the *post-mortem*, examining all the abdominal viscera, finding an ulcer, and yet does not know whether it is situate in the colon or somewhere else. Truly this example of professional ignorance beats all we ever heard! We have used black pepper for more than forty-five years, and failed to discover any *red* particles in it. Really the doctor was very sharp-sighted!

The appearence of the stomach and bowels (mark this!) *might* have been produced by the remedies applied, but *I* (Dr. J.) *can't tell*. Another remarkably conclusive piece of evidence, certainly. Again, the lungs were red and solid like liver. Another assertion to inculpate the accused! Well, doctor, what does this prove? Nothing; for it is a fact too well known to be contradicted, that when a person dies and is laid out, a regular drain takes place from the anterior to the posterior part of the lungs, settling there and producing the thickened, hardened effect discovered in Ward's liver. If the learned doctor knew this, he ought to have mentioned it; but either it would not have answered the purpose he had in view, or else he was ignorant of the fact. If so, many of even the scorned, contemptible Medical Botanists could have enlightened him on the subject. Again: Dr. Johnson swore positively that he had seen the motions of the deceased several times, and had examined them, and that they were of a very dark colour. Yet our veracious doctor was convicted in the room before the very impartial Coroner, jury and all the witnesses of the falsehood of his assertion by one of the witnesses, he not having seen them at all. After some shirking and shuffling, finding he could not get out of it, he said, "Well, well, whether or not, I knew well what they would be." This can be proved at the trial by three persons, besides Mr. Lacey. So much for the honourable and learned Dr. H. Johnson!

The summing up we have given entire, and a precious document it is. We leave our readers to draw their own conclusions, merely noticing that the Coroner states, that the medical testimony, and the evidence of the *post-mortem* examination, *which* proved that the deceased was treated for a disease under which he did not labour, &c., is not true, and the honourable acquittal of Mr. Lacey fully contradicts that assertion. As regards the jury, we must say, they coincided with this most veracious evidence without much exertion of judgment, or any evinced desire to hear both sides, not even so much as to wish for the nurse of Mr. Ward to be examined, and sapiently returned a verdict of manslaughter.

We also wish to inform the Shrewsbury Journalist, that Dr. COFFIN'S Medico-Botanical system is not a quack system, and by designating it as such, they publish their own ignorance of the meaning of the term; the system Dr. COFFIN'S agents practise upon, being the result of great experience, most diligent study, and untiring research.

Upon a careful review of the whole mass of evidence adduced by the learned, the conscientious, the liberal-minded medical gentlemen (including the Coroner) concerned, it proves a determination to make Mr. Lacey a victim to their allopathic vengeance—and what has he done to deserve it? Simply, he has cured several parties after they had failed, and could not relieve. Surely they ought, had they the welfare of mankind truly at heart, to have waited upon and thanked Mr. Lacey for doing that in which they so signally failed. This would have been just and magnanimous. Instead of which they have seized the first occurrence on which they thought a case might be got up to crush him: with what success the trial will prove. Messrs. Johnson and Bratton agree that inflammation of the lungs was the cause of death; yet during the time of Dr. Johnson's attendance upon T. Ward, there were either no symptoms of this disease, or that he failed to discover it. They come to that conclusion from the *post-mortem* exami-

nation. That there was disease of the lungs we do not deny; but how induced? Why, by the unwarrantable want of caution and discretion of the patient himself. Was Mr. Lacey to be blamed for this? Certainly not. Mr. Lacey, finding this to be the case, did apply proper remedies; but the patient was in that weak state, through his long illness, that life and death was equipoised. Mr. Lacey's medicines and skill turned the scale favourably, strengthened the patient, and great hopes were entertained of his recovery; but the patient's want of caution undid all that Mr. Lacey had accomplished; fresh and powerful inflammatory action commenced, which so prostrated the remaining powers of nature, that no earthly means could save the patient; consequently he sank and died. Now, supposing that Dr. Johnson or Mr. Bratton had been sent for at this crisis, what could they have done? What they would have done we know from their own showing; they would have bled, leeched and blistered him (counter-irritation would have done wonders), and all this in his then excessively weak and debilitated state; and what would have been the result of this depletory treatment? Would it have made the patient stronger, or renovated the powers of nature? We decidedly say not: it would have caused his death much sooner.

Again: Mr. Lacey had as much right to give his opinion of the patient's disease when called in, as Dr. Johnson, and at any rate he was nearer the truth; for active inflammation of the stomach there must have been, otherwise the stomach would not have presented the appearance it did.

Mr. Lacey did not overlook the cause of death: he gave the deceased proper remedies for the fresh accession of disease; but vitality was too far gone to rally; effusion of blood on the brain supervened, and that was the immediate cause of death.

Thus far did the Shrewsbury medical gentlemen succeed. They had gained one important step for the completion of their designs upon Mr. Lacey, and in order, if possible, to ensure conviction at the trial, they assembled full sixteen witnesses, as we are informed by a Shrewsbury correspondent, and sent for a gentleman from London, very high in the profession, to give his testimony in behalf of their cause, leaving nothing untried that would have a bearing against the accused; and, with a most praiseworthy zeal, making use of every circumstance that could be devised to obtain their very beneficent and most Christian end, the ruin of Mr. Lacey.

Behold, then, these worthy sons of Esculapius, assembling with their sixteen witnesses and great London gun, on the morning of the trial, arrayed in diplomatised dignity, congratulating themselves upon the apparent dead certainty of obtaining a conviction, which would incarcerate the unqualified, presumptuous interloper, punish his temerity for daring to trespass on their manor, prevent him for some time from obtaining his living, and finally ruining his prospects for life.

They had gone so far as to cause an honest man to be placed at the felon's bar, and what for? Simply for doing his duty. But here their success ended.

Picture to yourselves, readers, what a bitter pill was presented for them to swallow, and though not overpartial to taking their own poisonous compounds, they were compelled to bolt this (nolens volens). Judge what an overflow of bile was produced (beating poor Mr. Ward's biliousness hollow) when that noble, right-minded, praiseworthy jury interposed in the behalf of the persecuted one, stating they did not wish the case to proceed further, as the prisoner had treated the deceased with great care and attention. All honor rest upon them for their fearless and just interposition! Witness how chapfallen they must have been on hearing the verdict, "not guilty," pronounced. Lockjaw itself would have been a relief to them. Really, we did not envy them their feelings.

In conclusion, we are bound to state, it was not so much the ruin of an individual that produced this large amount of antagonism, as the opportunity that apparently presented itself to strike a blow, through Mr. Lacey, at Dr. COFFIN'S Medico-Botanical system, so successfully practised by him and his agents—to strike a blow at that system, which thousands live to bless; which has cured

HYSSOP.

multitudes when given up by the allopaths as incurable. Hatred, envy and malevolence towards our system was the actual cause of this persecution. How signally all has failed the verdict proves. And we tell them fearlessly that our system bears the infallible impress of truth and simplicity; have, do and will cure when theirs fail; and the more it and its practitioners are maligned and traduced, the more it and they will shine, and, like the fabled bird of old, triumphantly rise from the flames that failed to destroy it.

PICTORIAL ILLUSTRATIONS OF MEDICAL BOTANY.

GARDEN HYSSOP—(HYSSOPUS OFFICINALIS.)

DESCRIPTION.—Hyssop grows upwards of a foot high, with several stalks which are at first square, but grow round as the plant flowers. The herb is perennial; root thick, woody and much divided.

LEAVES.—Long, narrow, sharp-pointed and set two at a joint.

FLOWERS.—Grow in long spikes, set in thin whorls.

SEEDS.—Small and black, growing four together in the calyx.

PLACE.—Gardens.

TIME.—Flowers in July and August.

QUALITIES.—Hyssop, boiled with coltsfoot and honey, is good for coughs, shortness of breath and wheezings, proceeding from mucus in the bronchial tubes of the lungs.

It is stimulating, stomachic, carminative and tonic. A syrup made from the tops will also be found a good pectoral.

The green leaves pounded in a mortar and applied as a poultice will remove discolorations from the eyes, &c., after contusions, if immediately applied. It is excellent as a gargle for the quinsy The green herb bruised and mixed with sugar quickly, heals cuts and wounds.

MEDICAL BOTANY VERSUS ALLOPATHY.

MR. A., BIRMINGHAM, age sixty; disease a hard swelling of the epididymis of the testis, accompanied with most excruciating pain, of a neuralgic and intermittent type, caused partly by too free an indulgence in tobacco and alcoholic beverages. Was laid up a month prior to his trying the botanic system. Had been under an accounted skilful physician and saucy old surgeon, who together succeeded in making him scarcely able to lie in bed from pain, and altogether unable to sit up from weakness. He came under the botanic treatment February 24th, 1858, and was convalescent and free from pain by March 4th, 1858, a period of only eight days.

By the recommendation of a gentleman, I was sent for to see this patient, and give my opinion as to the prospects of his recovery. I was informed that he had been under two doctors for a month, who, finding they could make nothing of his case, except make him weaker and worse, advised him to go to London, and consult that "great gun" Sir Benjamin Brodie, who, they said, had great experience in such cases, and made an open confession to the poor sufferer of their own comparative ignorance. The gentleman told them he was so weak and ill it would be impossible for him to undertake such a journey; and as they had now given him up, he purposed, in compliance with the advice of friends, to try another "gun"—George Caldwell, M.R.C.S., the "herb doctor" in Birmingham. The doctors said he might please himself in trying what they called the "quack doctor," but that the idea of his doing him good after Dr. M— and Surgeon D— had failed was preposterous. He was not to be daunted by their opprobrious names and low insinuations, the old cuckoo cry of every ignorant, bigoted and flippant charlatan of the old school of the faculty—"quackery, quackery." He had made up his mind to try the herbal system. The doctors having left in high dudgeon, and in their inmost soul breathing indignation against the "quack doctor" and his system, I entered upon the scene. I found the gentleman in bed, with his features indicative of great suffering, his knees drawn up as near to his chin as possible, to try by that position to mitigate his agony, with a *cooling* lotion applied to the seat of pain, and a mixture close at hand, containing the usual cooling draughts of the *cold*-hearted faculty, composed of soda, sweet spirits of nitre and water, to be given with lemon-juice, with the intention, after their absurd notions, of allaying fever and acting as a *placebo*, and make the patient believe they were doing some-

thing, while in reality nothing, except "swelling a bill." The doctors had been cooling him down, as they do with most of their patients, and getting him in readiness for making his acquaintance with his "mother earth;" he would soon have been indeed as cold as the temperature of the clay, had he submitted to the treatment much longer. By the way of instalment, they had already bled him with twenty-one leeches; they had salivated him, as they told him nothing short of mercury "would touch his complaint." The patient had become restive in their hands, and told them he would have no more such treatment let the result be what it might. After I had minutely examined into the history and nature of his case, he anxiously inquired if I could do him any good: he said he had great faith in the "herbal system," but inasmuch as he had been so long under the doctors, and had the best advice and attention the faculty could furnish, and found no benefit, he feared his case was hopeless. To this I replied, that the fact of his having been under the faculty and they having not done him any good, was no criterion whereby to judge of the possibility of his obtaining a cure under the botanic system of practice.

As to treatment, in this I reversed the order of things. Instead of keeping him cool, I endeavoured to get him hot. I asked him, Had he had perspiration since he placed himself under the doctors? He said, "Not at all;" that he was more inclined to be cold. To obtain this I had recourse to the usual botanic remedies, strong yarrow-tea and cayenne-pepper, to be drunk freely, and hot applications, as hot bricks wrapped in vinegar cloths, to be applied to different parts of his body, with hot fomentations, maintained for two hours at a time, to the affected parts, followed up afterwards with stimulating and hot poultices. I ordered him as much nourishment as he could take, to get his lost strength restored, which had been recklessly taken away by the erroneous treatment he had had from the doctors. I also gave him powerful tonics and nervines, such as are known in the botanic practice to have a specific effect in curing diseases of an intermittent and neuralgic type. This case was truly of an intermittent type, coming on in paroxysms, and lasting for some hours, and then almost entirely absent for some hours. Under this mode of treatment the pain soon abated. The first night he slept better, and had scarcely any pain, and on the third day after commencing the botanic treatment, thinking, as he said, he was getting well all one way, he got out of bed and remained for a greater part of an hour undressed. The weather being extremely cold, the frosty air again struck into the parts affected, and the pain returned the same day with its usual violence, and the next day, somewhat later, and the day following later still; but about the sixth day it forgot to return, and he has continued to be almost entirely free from pain since, and is getting strong rapidly, eating well and sleeping well, and is now able to sit up for some time with impunity.

It is evident, looking at this case, that the doctors altogether mistook its nature. They took it for an ordinary case of inflammation, and treated it in accordance with their antiphlogistic notions, by bleeding, mercury, cold applications, and low diet, until they found they could lower him no further, unless they lowered him into the *grave*. If these gentlemen, or any other of the faculty, in Birmingham, should have any cases on hand they cannot cure, I shall be most happy to do it for the patient's sake.

GEORGE CALDWELL.

Worcester Street, Birmingham.
March 11th, 1858.

MR. LACEY AND HIS PERSECUTORS.

To the Editor of the Botanical Journal.

SIR,—I sent the following letter to the "Shrewsbury Chronicle." Whether they will insert it or not, perhaps you will kindly give it publicity, with any further remarks the case may seem to require.

To the Editor of the Shrewsbury Chronicle.

Sir,—In your impression of the 5th inst., is the account of an inquest lately held in Shrewsbury, in which a friend of mine, an old and respectable inhabitant, Mr. John Lacey, many years a botanical practitioner and agent to Dr. COFFIN, is commited for trial, on the Coroner's warrant (the Coroner is a doctor), for "wilfully

and of malice aforethought slaying" (for that is the charge) a patient he was sent for to attend, and whom he did attend to the best of his ability; and this I apprehend is all the law requires in such cases; and further, be it known, this he had as much right to do as any medical man in the town. The patient however died, as all necessarily must die, who are afflicted with such a combination of diseases as the *post-mortem*, according to the evidence, exhibits. Now, Mr. Editor, I would seriously ask, What end the doctors have in view in following up this prosecution? Do they or either of the jury believe that my friend Lacey wilfully killed his patient? If that cannot be proved (of course we have now nothing to do with private opinions or prejudices), the charge cannot for a moment be sustained; but the doctors have gained their object by endeavouring to raise an animus against him. Mr. Lacey's position in the town however is too firmly established to be affected by such means, as the result of the trial will be to their discomfiture and his triumphant acquittal. Hoping you will, in justice to my friend, insert these remarks in your next issue, to allay in some measure the undue excitement consequent on such proceedings,

I am, sir, your obedient servant,

JOHN STEPHENS.

108, *Ratcliff Highway, London, March* 9, 1858.

ON THE ACTION OF TEA AND COFFEE CONTRASTED WITH ALCOHOL.

IT is a most important fact, in a dietetic and therapeutic point of view (dietetic relates to diet, therapeutic relates to the application of remedies and means employed to cure disease), that the process of change, of which the greater part of the constituents of the urine are the products, should be capable of being lessened or increased by the presence of other substances in the blood. The former appears to be the operation of THEINE (the active principle of tea and coffee), for a very decided decrease shows itself in the amount of *urea* and of *phosphoric acid* excreted in the urine, when these beverages are employed, as compared with the amounts of the same substances, when the general regimen was as nearly as possible identical in other respects, but plain water was substituted as a drink. The difference is much greater in the case of coffee than in that of tea, amounting generally to as much as one-fourth; thus,

	Urea.	Phosph. Acid.	Com. Salt.
	gr.	gr.	gr.
H. S, without coffee voided . .	1469½	66¼	147¾
with coffee from 1½ oz. of beans	328½	45	132¼
Difference . .	1141	21¼	15½

It appeared from other experiments that neither caffeine nor the empyreumatic oil, separately administered, produce the same effect as coffee itself. Hence it appears that the use of tea or coffee, by lessening the "waste" of the system, diminishes the demand for food, and makes a limited amount of it go further; and this conclusion seems fully borne out by experience.

The like results happen, under the use of small quantities of alcohol frequently repeated; as much as 139½ grains less urea being excreted daily, when a teaspoonful of proof spirit was taken seven or eight times a day, than when water alone was drunk. It does not hence follow, however, that alcohol can be used as advantageously for this purpose as tea and coffee: in fact, it may be doubted whether it is so much by diminishing the "waste" of matter, as by interfering with the due elimination of its products, that alcohol occasions a diminution in the weight of the urinary solids, for it interposes a marked obstruction to the due oxidation of the excrementitious matter, which has been received back into the blood for the purpose of elimination, and for the removal of the hydrocarbonaceous portion of it. And, further, very cogent evidence is supplied by the experience of diseases relating to fermentation, such as small-pox, measles, &c., that the very same cause produces an accumulation of fermentable azotised substances in the blood.

It seems not unlikely that the almost instinctive craving for tobacco, among a large portion of mankind, arises out of its possession of a power of lessening the changing of the tissues; since we find that men, when supplied with this article, can far better sustain being put upon a short allowance of food, than when destitute of it.

DEATH.

WHATEVER be the causes of dissolution, whether sudden violence, or lingering malady, the immediate moods by which death is brought about appears to be but two. In one the nervous system is primarily attacked, and there is a sinking, sometimes an instantaneous extinction, of the powers of life; in the other, dissolution is effected by the circulation of black venous blood in the arteries of the body, instead of the red arterial blood. The former is termed death by syncope or fainting; the latter, death by asphyxia. In the last-mentioned manner of death, when it is the result of disease, the struggle is long and protracted, and accompanied with all the visible marks of agony, which the imagination associates with the closing scenes of life: the pinched and pallid features, the cold, clammy skin, the upturned eye, and the heaving, laborious, rattling respiration. Death does not strike all the organs of the body at the same time: some may be said to survive others; and the lungs are the last to give up the performance of their function and die. As death approaches, they become gradually more and more oppressed; the air-cells are loaded with an increased quantity of the fluid which naturally lubricates the surface; the atmosphere can now no longer come in contact with the minute blood-vessels spread over the air-cells, without at first permeating this viscid fluid: hence the rattle. Nor is this contact sufficiently perfect, to change the venous into arterial blood; an unprepared fluid consequently issues from the lungs into the heart, and is thence transmitted into every other organ of the body. The brain receives it, and its energies appear to be lulled thereby into sleep, generally tranquil sleep, filled with dreams which impel the dying lip to murmur out the names of friends, and the occupations and recollections of past life: the peasant "babbles of green fields;" Napoleon expires amid visions of battle, uttering with his last breath, "tête d'armée."

SUBSCRIPTIONS
FOR THE BOTANIC HOSPITAL.

Captain MacCarthy, Greenock, per
William Chippendale 0 5 0

NOTICES.

Dr. COFFIN may be consulted gratis, as usual, every Saturday evening, from four to eight o'clock, at the Botanic Establishment, No. 24, Union-street, East, Spitalfields. *Patients not admitted to the waiting-room after eight o'clock.*

Dr. COFFIN may also be consulted at his residence, 24, Montague Place, Russell-square, daily *(Sundays excepted)*, from one to two o clock (fee one guinea), on any day except Monday, on which day the fee will be five shillings only.

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BOTANICAL JOURNAL
AND
MEDICAL REFORMER.

"Human experience, which is constantly contradicting theory, is the great test of truth."—Dr. Johnson.

No. 259—Vol. VIII. SATURDAY, APRIL 17, 1858. Price 1d.

PETITION TO PARLIAMENT.

TO OUR AGENTS AND FRIENDS.

My General Agent, Mr. Ford, has sent to all my Agents and Friends the form of a PETITION to be filled up and sent to your sitting Member of the borough or town for presentation; and a printed form will be sent, for the convenience of each Agent, to circulate amongst his friends. All the names procured on the printed forms must be transferred to the written one.

The written form must be *first filled up*, and then all the names procured on the printed form must be pasted on the bottom of the written form, cutting off the printed heading, as no *printed* petition will be received in the House of Commons.

I now call upon my friends to make a grand and powerful effort to bring all our just claims before the British Parliament, and believe I shall not be deceived in their exertions, as the medical profession are making a strong effort to get an *exclusive law* passed to put us (if possible) down.

It is a fitting time for us to do something, and all I ask of you is to GO A HEAD, as I have done for you and the cause of Medical Botany.

Yours truly,

A. I. Coffin.

24, *Montague-place, Russell-square.*

EMPIRICS.

What a vast amount of obloquy, contempt, ignominy and reproach is insinuated by, connected with and embodied in the general use of the epithet "Empiric!" The agents and supporters of Dr. Coffin's system of Medical Botany are, like himself, branded with all the moral turpitude attached to the word; in our cases, *wrongfully attached*, which we can prove; and we are justly proud of the irrefragable evidence that we can bring forward to exemplify, that, instead of deserving reproof and condemnation, we deserve every commendation; and not only deserve it, but have it awarded to us in hundreds—nay, thousands—of instances, by those whom we have rescued from the "grim king of terrors" and restored to pristine health, even when given up by the regularly diplomatised, poison-prescribing practitioners, backed by all their scientific, their highly vaunted and much boasted, though useless, "rules of art," so far as they are connected with the cure of diseases. Let all then cease to stigmatise Dr. Coffin and his agents with the fallacious meanings attached to the epithet, especially as we have the power of proving its falsehood. In the true meaning of the term, we are "empirics," and we glory in the title. We are the followers of Hippocrates, and adopt his system, and like him, have studied in the right school. We have gone very far beyond Pope's assertion, that "A little learning is a dangerous thing," and not far enough to split upon the dangerous rock clearly pointed out by a most experienced and learned medical practitioner, who asserts that "The greatest attainments in learning and science lead but to doubt and indecision." No; we, the Medical Botanists, and practitioners of Dr. Coffin's

system, have chosen the happy mean, have diligently studied Nature's unerring laws, deeply studied cause and effect.

Instead of splitting straws upon the microscopical appearance of blood corpuscles, &c., &c., which evidence disease, and is the effect of the cause which engendered this diseased appearance, we at once strike at the root, at the cause itself, eradicate that, and the effect (viz., the disease) disappears, and this after the learned allopath has given up the patient as incurable.

In defiance of all the unjustifiable opposition of our antagonists, all the stigmas heaped upon us through their ignorance and prejudice, we can prove to all ingenuous and unsophisticated minds, that the higher and more eminent a medical practitioner becomes, the more he approximates to an empiric, in its true meaning. This assertion is no doubt a startling one to many, and we may be scorned and ridiculed for daring to make such assumption. The jeers of the weak-minded and superficial we can well excuse; for, "where ignorance is bliss, 'tis folly to be wise." These are quite welcome to be enshrouded in the mists of their own stolidity, and as there must be some of all grades of intellect in the world, they may as well fill a void as others. To the wise, observant and thinking part of the community we more particularly address ourselves; and by proving our point and argument, convince them that our assertion is true.

The true meaning of the term empiric being "one who depends upon experience." Now it was observed to us by a medical friend who had obtained all his certificates of attendance at lectures and diploma, &c., with much credit, that it was, so far as regarded the treatment of disease, experience alone that obtained him his present position, and that the more patients he saw, the more experience he gained, and the more proficient he became in understanding the proper treatment of disease. As a matter of course, our opponents say, this must follow; it is the natural course of events. We acknowledge it; and as you grant us this much, give us the like credit you would award to your fraternity, for it is the plan we pursue. Why then brand us with opprobrium for treading the same path? Does the possession of the diploma make the difference?

Again, another medical friend, some time back stated that in order to pass the examination for M.D., it was indispensable to be thoroughly versed in no less than eight subjects, not because it was practically necessary, but because it was insisted upon; the true benefit being, not the acquirement of the required learning, but the privileges appended to becoming an M.D.; and as to the means whereby it was to be obtained, the sooner they were forgotten the better, they being useless, learned lumber. So much for theory or the rules of art.

Again, we find a new era dawning in the practice of very many family doctors, whose system is greatly modified, depending more upon simple remedies, and carefully dieting their patients, to preserve them in health, than seeking to avert disease by the administration of the poisons generally so liberally dispensed. Many ladies, mothers of large families, have said to us, "We think very much of Dr. —, for he is one who will not overdose us with medicine; he does not approve of the general practice." Many other examples could be given by us, but we think these will suffice to shew our readers that the more liberal-minded of the regular faculty are coming over to our side, and covertly practising our system.

On the contrary, witness the sick-couch of the patient of the diplomatised, licensed medical practitioner, who still pertinaciously adheres to the allopathic poisonous compounds. The patient, suddenly taken with fever through accidental exposure to cold, treated with the usual allopathic remedies according to the systematical phase the disease has assumed, such as calomel, antimony, nitre, ammonia, opium, foxglove, &c., in conjunction with bleeding, leeching, blistering, cupping, low diet, refrigerating and depletory treatment. No wonder the patient sinks —one, perhaps, who is an only son or daughter of a widowed parent; one in whom all hopes are garnered. Picture the couch surrounded by weeping friends, the agonising grief of the parent over the hopeless case of the dying one; hear the last heart-rending shriek of her hopeless despair which accompanies the last sigh

of the sufferer, and say, Should such methods of poisonous practice be tolerated? Truly, as Dr. Marsh, of Dublin, says, with regard to the deathly treatment of Mr. Stafford, "there was no mistake in the treatment, but it was very strong." Yet, notwithstanding the use of these noxious poisons above enumerated, which the allopath prescribes systematically, he has acted in accordance with acknowledged allopathic treatment; and also, being backed with a diploma, no blame is ascribed to him: he has his license for administering such drugs, and his certificate of death is all the recompense the bereaved one receives, excepting the disbursement of cash for his unsuccessful attendance. The patient is buried, the grave covers all, and there is an end of the matter.

The above is no exaggerated statement. Cases of a like nature are happening daily, and when by any chance a patient does recover, it is by the strength of constitution which has enabled nature to throw off, not only the disease, but also to overcome the deleterious effects of the deadly drugs and depletory treatment the patient has been subjected to. How a man, knowing the nature, effects and qualities of such poisonous drugs as before alluded to, can conscientiously think that he has done his duty, is beyond our poor comprehension. Had we thus acted, we could not have laid quiet in our beds. The only conclusion we can arrive at is, that as such cases so frequently happen, the heart grows steeled and callous, and looks upon it as a matter of course.

We will now take the same case under the Medico-Botanical treatment of Dr. COFFIN and his agents, under the much scouted, traduced, maligned men, contumeliously styled empirics—men with no pretensions to medical education, as the allopaths understand it, yet they cure, and, if called in in proper time, *never fail.* What they mean by proper time is, when the patient has vitality enough left in the system sufficient to be properly excited, strengthened and renovated by our nature-assisting treatment and medicines.

There are instances when, from an assemblage of diseases, no earthly power can save the patient. Upon this subject we are not at present treating: we are taking parallel cases of fever and treatment. We reiterate that in no instance have we failed. We go with certainty to the work: the patient does not die under our superintendence: there are no weeping friends, no agonised parent despairingly watching for the last breath of the sufferer: all faces beam with hope: and the result does not disappoint their expectations. All this, and more, we the Medical Botanists do, can do, and have repeatedly done, under the very noses of the allopath, who has given the case up as beyond his skill. No wonder, then, that we are marked out as fit butts to shoot their allopathic spite and malice at. We know with what envy even a partially successful practitioner in their ranks is viewed. We are no strangers to their spite and jealousy.

All this makes us more careful; incites us to think deeply on nature's laws, and deduce the proper conclusions.

Having no diploma to protect us, it behooves us to be doubly careful in our practice, well knowing that even any accidental slip will be pounced upon with joy and avidity by our opponents, to ruin us and our health-dispensing system in the estimation of society. Nevertheless, we boldly set them at defiance—dare them to do their worst; and, when so done, the glorious result will be, that our system and cause will ride triumphant over the stormy billows of malice, spite and malevolence, and be the admiration of posterity.

LIFE.

(*From Carpenter's Physiology.*)

THE idea of *life*, in its simplest acceptation, is that of *vital activity*, and obviously, therefore, involves that of *change.* We do not consider any being as alive, which is not undergoing some continual alteration, however slow and obscure, that may be rendered perceptible to the senses.

Observation.—If change be essential to our idea of life, it may be asked, What is the condition of a *seed*, which may remain unaltered during a period of many centuries? In proof of this we know that peas have been taken from

the coffin of a mummy many centuries old, and have recently been planted, and have germinated and grown; vegetating, at least when placed in favourable circumstances, as if it had only ripened the year before. Such a seed is not *alive*, for it is not performing any vital operations; but it is not dead, for it has not undergone any disintegration, and it is still capable of being aroused into active life, by the application of the appropriate stimuli. The most correct designation of its state seems to be dormant vitality. The condition of an animal, reduced to a state of complete torpidity and inaction, is decidedly analogous. Into such a condition the frog may be brought by cold, and the wheel *animalcule* by dessication (drying up); and the condition of a human being during sleep is precisely similar, so far as his physical powers are concerned: he is not then a thinking, feeling man; but he is capable of feeling and thinking when his brain is restored to a state of activity, and its powers are called into operation by the impressions of external objects. To resume: this alteration may be evidenced by the *growth* and *extension* of the organic structure, or by *molecular changes* in its substance, which do not produce any apparent increase, or it may be most obviously manifested in *movements*, such as cannot be attributed to any physical cause. The life of any complex organism, such as that of man, is in fact the aggregate of the vital activity of all its component parts; and no fact has been more clearly ascertained by modern physiological research than this—that each elementary part of the fabric has its own independent power of growth and development, that it has its own term of existence, and that it goes through its own sequence of vital actions, in virtue of the endowments which it derived from the tissue that evolved it, and of the influences to which it is subjected during the progress of its existence. Not only might this mutual independence be inferred from general considerations; its existence is easily proved by observation and experiment. There are a variety of cases in which the "molecular life" of individual parts, remains long after the death of the body, as a whole, has taken place. And not only may vital activity be sustained, in a part completely separated from the body, by the maintenance of the circulation of blood through it, but vital endowments which had partially or completely ceased to manifest themselves, in consequence of the cessation of the circulation, may be restored by its re-establishment. The occasional reunion of a member which has been entirely separated, when decomposing changes have not yet commenced in it, most clearly shows that nothing but the restoration of its current of blood is requisite for the preservation of its vitality, and that its powers of growth and renovation are inherent in itself, only requiring a due supply of the nutrient material, with certain other concurrent conditions.

But in every living structure of a complex nature, whilst we witness a great variety of actions resulting from the exercise of the different powers of its several component parts, we at the same time perceive that there is a certain harmony or co-ordination amongst them all, whereby they are all made to concur in the maintenance of the life of the organism as a whole. And if we take a general survey of them with reference to their mutual relations to each other, we shall perceive that they may be associated into groups, each consisting of a set of actions, which, though differing among themselves, concur in effecting some positive and determinate purpose. These groups of actions are termed functions. Thus one of the most universal of all the changes necessary to the continued existence of a living being is the exposure of its nutritious fluid to the air, by the action of which upon it, certain alterations are effected. For the performance of this aeration, simple as the change appears, many provisions are required. In the first place, there must be an aerating surface, consisting of a thin membrane permeable to gases; on the one side of which the blood may be spread out, whilst the air is in contact with the other. Then there must be a provision for continually renewing the blood which is brought to this surface, in order that the whole mass of fluid may be equally benefited by the process. And, in like manner, the stra-

tum of air must also be renewed as frequently as its constituents have undergone any essential change. We include, therefore, in speaking of the function of respiration, not only the actual aerating process, but also the various changes which are necessary to carry this into effect, and which obviously have it for their ultimate purpose.

On further examining and comparing these functions, we find that they are themselves capable of some degree of classification. Indeed, the distinction between the groups into which they may be arranged, is one of essential importance in animal physiology. If we contemplate the history of the life of a *plant*, we perceive that it grows from a germ to a fabric of sometimes a gigantic size, generates a large quantity of organised structure, as well as many organic compounds, which form the products of secretion, but which do not undergo organisation, and multiplies its species by the production of germs similar to that from which it originated; but that it performs all these complex operations without (so far as we can perceive) either feeling or thinking, without consciousness or will. All the functions of which its life is composed are therefore grouped together under the general designation of functions of *organic* or *vegetative* life; and they are subdivided into those concerned in the development and maintenance of the structure of the individual, which are termed functions of *nutrition*, and those to which the *reproduction* of the species is due. The great feature of the nutritive operations in the plant is their *constructive* character. They seem as if destined merely for the building-up and extension of the fabric; and to this extension there seems in some cases to be no determinate limit.

But it is very important to remark, that the growth of the more *permanent* parts of the structure is only attained by the continual development, decay and renewal of the parts whose existence is temporary. No fact is better established in vegetable physiology than the dependence of the formation of wood upon the action of the leaves. It is in their cells that those important changes are effected in the sap by which it is changed from a crude, watery fluid, containing very little solid matter, to a viscid substance, including a great variety of organic compounds, destined for the nutrition of the various tissues. The fall of the leaf results merely from the death and decay of its tissue; as is evident from the fact that, for some time previously, its regular functions cease; and that instead of a fixation of carbon from the atmosphere, there is a liberation of carbonic acid (a result of their decomposition) in large amount. Now this process takes place no less in evergreens than in deciduous trees, the only difference being that the leaves in the latter are all cast off and renewed together, while in the former they are continually being shed and replaced a few at a time. It appears as if the nutritious fluid of the higher plants can only be prepared by the agency of cells, whose duration is brief; for we have no instance in which the tissue concerned in its elaboration possesses more than a very limited term of existence. But by its active vital operations, it produces a fluid adapted for the nutrition of parts which are of a much more solid and permanent character, and which undergo little change of any kind subsequently to their complete development; this want of tendency to decay being the result of the very same peculiarity of constitution as that which renders them unfit to participate in the proper vital phenomena of the organism. Thus the final cause or purpose of all the nutritive functions of the plant, so far as the *individual* is concerned, is to produce an indefinite extension of the dense, woody, almost inert and permanent portions of the fabric, by the continued development, decay and renewal of the soft, active and transitory cellular *parenchyma* (nourishing principle).

The nutritive functions, however, also supply the materials for the continuance of the *race* by the generation of new individuals; since a fresh germ cannot be formed, any more than the parent structure can be extended, without organisable materials, prepared by the assimilating process, and supplied to the parts in which active changes are going on.

On analysing the operations which take place in the *animal* body, we find that a large number of them are of essentially

the same character with the foregoing, and differ only in the conditions under which they are performed; so that we may, in fact, readily separate the *organic functions* which are directly concerned in the development and maintenance of the fabric, from the *animal* functions, which render the individual conscious of external impressions, and capable of executing spontaneous movements. The relative development of the organs destined to these two purposes, differs considerably in the several groups of *animals*. The life of a *zoophyte* is upon the whole much more "vegetative" than "animal;" and we perceive in it, not merely the very feeble development of those powers which are peculiar to the animal kingdom, but also that tendency to indefinite extension which is characteristic of the plant. In the insect we have the opposite extreme. The most active powers of motion and sensations of some (at least) are very acute, coexisting with a low development of the organs of nutrition. In man and the higher classes generally, we have less active powers of locomotion, but a much greater variety of animal faculties; and the instruments of the organic or nutritive operations attain their highest development, and their greatest degree of mutual dependence. In the fabric of all beings whose animal powers are much developed, we see an almost entire want of that tendency to indefinite extension which is so characteristic of the plant; and when the large amount of food consumed by them is considered, the questions naturally arise, to what purpose this food is applied? and what is the necessity for the continued activity of the organic functions, when once the body has attained the limits of its development?

The answer to these questions lies in the fact, that the exercise of the animal functions is essentially *destructive* of their instruments; every operation of the muscular and nervous systems, involving as its necessary condition, a disintegration of a certain part of their tissues, so that the duration of the existence of those tissues varies inversely to the use that is made of them, being less as their functional activity is greater. A compensating operation of the constructive functions is therefore required, in order to repair the loss of substance thus occasioned; from which it happens that the demand for nutrition (and therefore the necessity for food) is in a great degree regulated by the functional activity of the nervo-muscular apparatus. We are not, however, to measure the activity of the nervous system, like that of the muscular, or by the amount of *movement* to which it gives origin; for there is equal evidence that the demand for blood in the brain, the amount of nutrition it receives, and the degree of disintegration it undergoes, are proportioned likewise to the energy of the purely *psychical* operations; so that the vigorous exercise of the intellectual powers, or a long-continued state of agitation of the feelings, produces as great a waste of nervous matter as is occasioned by active bodily exercise. But further, in the performance of the organic functions of animals (thus called into activity for ulterior purposes), there is, no less than in the vegetative life of a plant (which begins and ends with itself), a continual production, decay, exuviation, and renewal of the cells by whose instrumentality many of the most important changes are effected. This successional loss and replacement of the most important components of the nutritive system of the animal is a phenomenon really not less intimately related to its functional activity, than is that in the leaves of a plant; but it takes place in the hidden recesses of the system in such a manner as to elude observation, except that of the most scrutinising; and it has been in bringing this into view that the microscope has rendered one of its most valuable services to physiology.

In the animal fabric, then, among the higher classes at least, the functions or purpose of the organs of vegetative life is not so much the extension of the fabric, for this has certain definite limits, *as the maintenance of its integrity, by the reparation of the destructive effects of the exercise of the purely animal powers.* By the operations of digestion, assimilation and circulation, the nutritive materials are prepared, and are conveyed to the points where they are required; the circulation of aerated blood also serves to transmit oxygen, which is introduced by the respiratory process, and it has, further,

for its office, to convey away the products of that decomposition of the muscular and nervous tissues which results from their functional activity, these products being destined to be separated by the respiratory and other excreting operations. The regular maintenance of the functions of animal life is thus entirely dependant upon the due performance of the nutritive operations—a consideration of great importance in practice, since a very large proportion of what are termed functional disorders (of the nervous system especially) are immediately dependant upon some diseased state of the blood; but there also exists a connection of an entirely reverse kind between the organic and the animal functions, for the conditions of animal existence render the former, in a great degree, dependant on the latter. In the acquisition of food, for example, the animal has to make use of its senses, its physical faculties, and its power of locomotion, to obtain that which the plant, from the different provision made for its support, can derive without any such assistance. Moreover for the ingestion of its food and for its propulsion along the alimentary canal, muscular action is required, this being employed under the direction of nervous agency at the oral and anal orifices. And thus we see that the change of the conditions required for the appropriation of food by animals, has rendered necessary the introduction of additional elements into the apparatus, to which nothing comparable was to be found in plants. Again: in the functions of respiration, as performed in man and the higher animals, the nervous and muscular systems are alike involved; for the movements by which the air in the lungs is being continually renewed, are dependant upon the action of both, and those by which the blood is propelled through the respiratory organs, are chiefly occasioned by the contractility of a muscular organ, the heart. Such movements, however, as are thus immediately connected with the maintenance of the organic functions, do not depend upon the *will*, and may even be performed without our *consciousness:* they can scarcely be regarded, therefore, as forming a part of our proper animal life; and the only essential difference which they present, from those which are occasionally performed by plants (especially such as exhibit the transmission of the effect of a stimulant at some distance—the folding of the leaves of the mimosa, or the closing of the fly-trap of the dionæa, for example), consists in the instrumentality through which they are performed; this being in animals a peculiar nervous and muscular apparatus, whilst in plants it is only a modification of the ordinary structure.

From what has been said, then, it appears that all the functions of the animal body are so completely bound up together, that none can be suspended without the cessation of the rest. The properties of all the tissues and organs are dependant upon their regular nutrition, by a due supply of perfectly elaborated blood. This cannot be effected unless the functions of circulation, respiration, and excretion, be performed with regularity; the first being necessary to distribute the supply of nutritious fluid; the second being requisite for its oxygenation and being also needed, in conjunction with the third, to free it from the impurities which it contracts during its circuit. The respiration cannot be maintained without the integrity of a certain part of the nervo-muscular apparatus; and the due action of this again is dependant not only upon its regular nutrition, but also upon its supply of oxygen. The materials necessary for the replacement of those which are continually being separated from the blood, can only be derived through the absorption of ingested aliment; and this cannot be accomplished without the preliminary process of digestion. The introduction of food into the stomach, again, is dependant, like the actions of respiration, upon the operations of the muscular apparatus, and of a part of the nervous centres; and the previous acquirement of food necessarily involves the purely animal powers. Now it will serve to show the distinction between these powers and those which are merely subservient to organic life, if we advert to the case, which is of no unfrequent occurrence, of a human being, deprived (as in apoplectic coma), by some morbid condition of the brain, of all the powers of animal life, sensation, thought, volition, &c., and yet capable of main-

taining a vegetative existence, in which all the organic functions go on as usual; that division of the nervous system which is concerned in the movements whereon some of these depend not being yet affected by the morbid influence. It is evident that we can assign no definite limits to such a state, so long as the respiratory movements are sustained, and the necessary food is placed within reach of the grasp of the muscles that will convey it into the stomach. As a matter of fact, however, it is seldom of long continuance, since the disordered state of the brain is sure to extend itself sooner or later to the rest of the nervous system. This condition may be experimentally imitated, by the removal of the brain, in many of the lower animals, whose bodies will sustain life for many months after such a mutilation; but this can only take place when that food is conveyed by external agency within the pharynx, which they would, if in their natural condition, have obtained for themselves. A similar experiment is sometimes made by nature for the physiologist, in the production of fœtuses, as well of the human as of other species, in which the brain is absent: these can breathe, suck and swallow, and perform all their organic functions; and there is no assignable limit to their existence, so long as they are duly supplied with food. Hence we may learn the exact nature of the dependance of the organic functions upon those of purely animal life; and we perceive that, though less immediate than it is on the simple, excito-motor actions of the nervous and muscular systems, it is not less complete. On the other hand, the functions of animal life are even more closely dependant upon the nutritive actions, than are those of organic life in general, for many tissues will retain their several properties and their power of growth and extension, for a much longer period after a general interruption of the circulation, than will the nervous structure; which is indeed instantaneously affected by a cessation of the due supply of blood, or by the depravation of its quality.

THERAPEUTICS

Is that division of pathology or science which considers the application of the remedies and means employed, with a view to prevent and cure diseases.

The cure of a disease depends upon the removal of its proximate cause. This is effected either by the powers of nature alone, or conjointly with the assistance of medicine, so that the cure of a disease may be said to be either natural or artificial.

The powers of nature are inherent in the solids and fluids, and it is by their exertion that a stop is occasionally put to the progress of a disease, or that it is cured without the administration of medicine; and it is also by their cooperation that the medical science is so beneficial. We are in ignorance, most probably, of the greater part of the healing powers of nature. Many diseases are cured by attention merely to the air we breathe, the food we eat, the state of the mind, the rest and exercise of the body; and many are naturally removed as life advances, and by alteration of habits, change of temperature, clothing and climate, without the aid of medicines.

The assistance with which the medical science is enabled to attempt and to effect the cure of diseases is arranged under three heads.

First. The *hygienal*, which embraces the diet and regimen.

Second. The *medicinal*, which regards the administration of medicines, both external and internal.

Third. The *surgical*, or the assistance of manual, fascial and instrumental operations. As some diseases admit of being prevented, some of being partially and others being wholly removed or cured, there is a distinction into—first, the *preventive;* secondly, the *palliative;* and thirdly, *radical* cure. The *method of cure* is the plan which regulates all the circumstances, rules, regulations, &c., for the welfare of the diseased. It therefore not only embraces the knowledge of the remedy to be exhibited, but also the consideration of the state of the body, the knowledge of the nature of the disease and the operation of the remedies; for when disease is going on, the functions are not performed in a healthy manner, and one or more of the moving powers take on a particular change of action, in which change the disease consists. The

removal therefore of the disease requires the return from morbid to healthy action. This must of course be effected by bringing about certain alterations in the moving fibres. This being admitted, it follows that the application of the remedy must be so managed as to produce such alterations as are known by experience to diminish or destroy the diseased action; so that to attempt the cure of a disease, we must first be acquainted with the alterations we wish to produce, and we must also know what means are capable of effecting the change we desire. Pathologists have arranged the consideration of these several circumstances under four heads (namely), the indicant, the indication, the thing indicated and the contra-indication; and unless these are duly considered before we attempt either to palliate or cure a disease, the attempts will most probably be unsuccessful.

First. The *indicant*, or diseased action, from which the symptoms arise; and everything that should not exist is an indicant.

Secondly. The *indication* or that which is calculated to remove the indicant.

Third. The *thing indicated*, or the remedy.

Fourth. The *contraindication*, or that about the patient or the disease which prevents the use or application of the usual remedies. These several divisions are well illustrated in hysteria: the hysterical action of the nerves and muscles is the indicant, or disease, the symptoms of which are the unnatural and peculiar movements of the muscles affected: the indication is to allay those unnatural and inordinate contractions: the thing indicated is the remedy. It may happen that if opium, &c., would produce much after-inquietude, that peculiarity is a contra-indication to its use, and something else must be used and preferred.

THE INFLUENCE OF WHOLESOME DRINK.

(Continued from page 228.)

As with tea, so with coffee; it requires to be prepared differently, accordingly as the object is to get from it the finest flavour or the greatest amount of nourishment. The most delicious coffee may be made by using a tin vessel called a percolator, having a false bottom at mid-height, drilled full of fine holes, and a spout coming off from beneath the false bottom. Finely ground coffee is to be pressed and beaten down firmly upon the false-bottom, and then boiling water is to be poured over it through a kind of coarse colander, so arranged as to break its descent into a boiling shower. The hot water thus gently rained down on the coffee then drains gradually through it, carrying all the finer parts and flavours with it into the vessel beneath, but leaving behind the coarser matters. For the convenience of consumers, coffee is now commonly removed from the roaster at once into a mill driven by steam, and is there ground while still hot. It is then pressed out from the mill directly into tin cases prepared to receive it, these being immediately closed very carefully. By these means the coffee powder is sent out, ready for use, with all its most excellent qualities clinging about it. Three drachms of ground coffee of this quality are abundantly sufficient to furnish two small cups of a most delicious beverage.

When quantity of nourishment, rather than fineness of flavour, is the thing desired, the ground coffee should be placed in a clean dry pot standing over the fire, and be kept there until thoroughly hot, being stirred constantly, so that it may not burn. About five grains of carbonate of soda should then be added for each ounce of coffee, and boiling water be poured on, the whole being closely covered up and allowed to stand near the fire, without simmering, for some time. When about to be used, it should either be gently poured off into cups, without shaking it, or it should be strained through a linen cloth into another pot. An ounce of coffee employed in this way is sufficient for the preparation of two pints of strong, nutritious drink.

A small evergreen tree grows in the West Indies, Mexico, and Peru, which bears a large fruit something like a melon. In this fruit there are a great number of seeds resembling beans. When the fruit is ripe, it is plucked from the tree and split open, and the seeds are picked out and dried in the sun. After these beans

have been roasted in an iron cylinder, in the same manner as coffee, they, too, become bitter and fragrant, and are turned into what is known as COCOA. To form cocoa-nibs, the husk of the roasted bean is stripped off, and the rest is broken up into coarse fragments. In the preparation of chocolate, the cocoa-nibs are ground up and turned into a sort of paste, by admixture with sugar and spices. The unhusked bean is also crushed between heavy rollers, and made into a coarser kind of paste, with starch and sugar, and is then sold in cakes.

Cocoa contains about the same quantity of the nerve-food ingredient as tea, and besides this it also contains a nutritious meal. More than half its weight is, however, made up of a rich, oily substance, nearly resembling butter in its nature. When cocoa is prepared by stirring the paste up in boiling water, all these several ingredients are present in the drink. It is then as nourishing as the very strongest kind of vegetable food, and scarcely inferior to milk itself. It indeed is richer than milk in one particular: it contains twice as much fuel substance, or butter, and if the nerve-food ingredient be taken into the reckoning, it is scarcely inferior in supporting power. On account of its richness, it often disagrees with persons of weak digestion, unless it be prepared in a lighter way, that is, by simply boiling the cocoa-nibs in water, and mixing the beverage produced with enough milk to reduce its great excess of oily principle. Cocoa serves at once as an agreeable and refreshing beverage, and as a highly nutritious food for healthy and hard-working people. It has in itself the excellences of milk and tea combined.

The beverages which are also prepared by soaking the seeds of vegetables in hot water, but which are not then drunk until a further change, of the nature of partial decay, has been produced in them, are of a very unlike character to those which have been hitherto under consideration. Although there are several different kinds of this class, they all stand together under the family name of BEER. Now this much must at once be said for these beverages: there are in all of them both flesh-making substance and fuel-substance. The first gives to the liquor its body, and the second confers its sweetness. The barley-corn contains the same kinds of ingredients as the wheat-grain, and by the operation of malting the starch is chiefly turned into sugar. If a gallon of strong ale be boiled over a fire, until all the more watery parts are steamed away, there will be found at the bottom of the vessel rather more than a quarter of a pound of dry remainder. This is flesh-making substance, and sugar, which were originally taken out of the malt. If a gallon of milk were treated in the same way, there would be found nearly a pound of similar dry substance. Strong beer therefore contains about one-third part as much nourishment as an equal quantity of milk. When beer is drunk, its watery parts are at once sucked from the digesting-bag into the supply-pipes, to be poured through the body with the blood: this is how beer quenches the thirst. The thicker portions are pushed on through the sluice-gate of the stomach in a digesting state and are, in fact, treated in every respect as ordinary food.

Mixed with the thinner parts of beer, which are thus sucked into the supply-pipes, there is, however, an ingredient which is not as unquestionably nourishing as the thicker principles, and which certainly is not as good a thirst-quencher and dissolver as water. Flesh-making substance and fuel-substance, either in the state of starch or sugar, may be kept unchanged any long period of time if thoroughly dry, and shut up from the air. When they are moist and exposed to the air, they directly begin to spoil and decay. In beer, these substances are mixed with a large quantity of water, and are exposed to the air, at least during the brewing. Hence, in beer, both are found in a spoiled and decaying state. In this case, the process of decay is called fermentation, or "puffing up," because the vapours produced by the decay, froth the sticky liquid in which they are set free. The yest which rises to the surface of fermenting beer, is decaying and spoiling flesh-making substance. The spoiled fuel-substance (sugar) froths and bubbles away into the air as vapour.

But the fuel-substance (sugar) does

not, as it decays, bubble away into vapour all at one leap. It makes a halt for a little while in a half-decayed state, and in this half-decayed state it has a very spiteful and fiery nature. In that fiery and half-decayed condition it forms what is known as ARDENT or burning SPIRIT. Beer always has some, as yet, undecayed and unchanged sugar remaining in it, when it is drunk, but it also always has some half-decayed sugar or spirit, and bubbling vapours formed by the progress of decay. It is these ingredients of the beer which give it the fresh and warm qualities for which, as a beverage, it is chiefly esteemed.

The spirituous ingredient of fermented liquors is directly sucked with the water out of the stomach into the supply-pipes of the body, and poured everywhere through them. There is no doubt concerning that fact. Animals have been killed and examined a few minutes after fermented liquor had been placed in their digesting bags, and the ardent spirit has been found in great quantity in their supply-pipes, their hearts, and their nerve-marrows and brains.

But some doubt does yet remain as to what the exact nature of the influence is which the ARDENT SPIRIT exerts, when it has been introduced into these inner recesses of the living body in small quantity, and as much diluted by admixture with water as it is in most beers. Some persons, whose opinions cannot be held to be without weight, believe that diluted spirit is capable of aiding the nourishment of the body—of acting as a sort of food. Others of equal authority are convinced that it can do nothing of the kind.

But however the matter may appear regarding the power of ARDENT SPIRIT to nourish, no doubt can be entertained of the fact, that it certainly is not a necessary food. There is actually nothing of a material kind in the bodies of human creatures, which is not also present in the frames of the irrational animals. The same kind of structures have to be nourished, and the same kind of bodily powers to be supported in oxen and sheep as in men. But oxen and sheep fatten, and grow strong, and are maintained in health without ever touching so much as a single drop of ardent spirit. There are hundreds of men too who preserve their vigour and health up to great ages, without even tasting fermented liquors.

It must also be admitted that there are great numbers of people who use fermented liquors in moderation every day, of whom the same can be said. But it is to be feared that those who are safely moderate in their employment of these treacherous agents, are a really small band compared with those who allow themselves to be continually within the reach of unquestionable danger. In the United Kingdoms of Great Britain and Ireland, with a population amounting to rather less than thirty millions of individuals, when the numbers were last reckoned, there are yearly sixty-one millions of gallons of ardent spirit consumed as beer; thirty millions of gallons as spirit; and nearly two millions of gallons as wine.

There is, yet again, another very important point of view, from which the habitual moderate use of fermented liquors must be contemplated. A pint of strong beer is in itself no very great thing. Many people swallow it almost at a single draught, and in less than a minute. The trifling act, however, entails one serious consequence, when it is performed day by day. A pint of strong beer cannot be bought at a less cost than threepence. Threepence a day, at the end of a year, amounts to £4 : 11 : 3. If it be only laid by and made no use of at the end of sixty years, it amounts, under the same circumstances, to £273. If employed, instead of being laid by, it might be improved at the end of sixty years into a large fortune. Hundreds of men have made thousands of pounds with smaller means.

Money, of course, is of no great value in itself; it is only of value when applied to good service. But herein lies the gist of the matter: money always can be made good use of. If a young man at the age of eighteen begin to lay by threepence every day, instead of buying a pint of beer with it, and continue to do the same thing for two years, he may purchase with the saving an allowance of £10 a year to commence at the age of sixty-five years, and to be continued as

long as he may thereafter happen to live. If he laid by threepence a day for five years, he could purchase with his savings, at the end of that time, an allowance of ten shillings a week to commence at the age of sixty-five years. If a young man at eighteen begin to lay by threepence a day and continue to do the same thing from year to year, he may at once purchase the certainty of being able to leave behind him a little fortune of £300 for his wife or children, or any other relatives who may be dear to and dependent upon him, whenever death puts an end to his earthly labours! Surely no rational and prudent man would ever think even 22,000 pints of profitless beer an equivalent for such a result of his industrious labour. It is by no means too strong an expression to speak of the beer as profitless for this reason : a gallon of strong beer contains a quarter of a pound of nourishment, bought at the cost of a couple of shillings. Two shillings would purchase about three pounds of excellent mutton or beef. The direct money-value of ardent spirits, swallowed every year by the inhabitants of the British isles, exceeds ninety millions of pounds sterling.

(To be continued.)

TEMPERAMENT.

In the ancient physiology, the different mixture of the cardinal humours, or the predominance of one or the other, was conceived to give rise to four distinct temperaments. These temperaments were called the SANGUINE, which was attributed to a predominance of *blood:* the CHOLERIC, arising from an excess of *bile:* the PHLEGMATIC, from an abundance of *phlegm;* and the MELANCHOLIC, from the influence of *black bile.* The temperament called phlegmatic by the ancients, is now more generally styled LYMPHATIC. Modern physiologists have added another temperament (viz.), the NERVOUS, which however may be considered as an acquired temperament, arising out of the habits of civilised life. Any one temperament is seldom if ever to be met with pure in any individual; the greater part of mankind are of mixed temperaments; in many instances, however, there is, in this mixture, a very decided predominance of one or other temperament.

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ERRATUM.

No. 258, page 235, line 21 from bottom of first column, *for* liver *read* lungs.

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No. 260—Vol. VIII. SATURDAY, MAY 1, 1858. Price 1d.

PETITION TO PARLIAMENT.

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THE GLEANER, No. 10.

LOBELIA INFLATA.

Notwithstanding the testimony that has, for several years, been spread before the British public, on the nature and properties of Lobelia, not only by the benefits that tens of thousands have received by it, but the constant and continued failures of the faculty in making out a case against it, backed by the mendacious statements of a *Letheby*, yet they still persist that it is a poison. Though the testimony on the part of the doctors is sweeping, yet, if you cross-examine them, they will at once be compelled to say, "*I have never given it myself, or taken it, nor have I ever stood by the bedside of the patient that has taken it*; STILL IT IS POISON!" We have written and lectured on the Lobelia for the last twenty years in England. We have introduced many tons of the herb from America, and distributed it among all classes of the people, and that too under the very eye of the medical profession, and we are quite sure that many of them believe it to be a good medicine; and "*still it is poison!*" Last year we gave our opinion to the House of Lords, at the time they were investigating the "*Poisons Bill!*" Professor Calvert also was examined on the properties of Lobelia, but, from his many failures in trying to kill animals, he thought it was "*very doubtful whether it was poison!*" And yet the great gun of the faculty, the *Lancet*, no longer ago than the 10th inst., states that the case of Mr. F. Ward, of Shrewsbury (for the death of whom, our agent Mr. J. Lacey was charged by the coroner with manslaughter), at a "*post-mortem* examination, disclosed that the immediate cause of death was inflammation of the lungs; that the stomach was inflamed and congested, due to the irritant effect of the vegetable poison, and that the colon was extensively ulcerated." But so far from believing the above statement, the judge (Channells) interposed, and Mr. Lacey was at once set at liberty. But as the medical profession have no doubt been, in some measure, led into the error that Lobelia is poison, from the statements made in the "American Dispensatory," published in Philadelphia, in 1834, we shall make the quotation from

page 410, and give our own comments as we pass along. They say, "Lobelia is emetic, and, like other medicines of the same class, is occasionally cathartic, and in small doses, diaphoretic and expectorant. It is also possessed of narcotic properties. The leaves or capsules, chewed for a short time, occasion giddiness, headache, general tremors, and ultimately nausea and vomiting; when swallowed in full doses, the medicine produces speedy and severe vomiting, attended with continued and distressing nausea, copious sweating, and great relaxation. Its effects, in doses too large, or too frequently repeated, are extreme prostration, great anxiety and distress, and ultimately death, preceded by convulsions. Fatal results have been experienced from its empirical use: these are more apt to occur when the poison, as sometimes happens, is not ejected by vomiting. In its operation upon the system, therefore, as well as in its sensible properties, Lobelia bears a close resemblance to tobacco. It is among the medicines employed by the aborigines of this country, and was long in the hands of the empirics before it was introduced into the regular practice. As an emetic, it is too powerful and too distressing, as well as too hazardous in its operation, for ordinary use." The above is the statement that has given the cue to the opposition, as well as the fact that it was introduced into notice by a man that did not *rejoice* in having a diploma, Samuel Thomson. It is stated in the above extract, that the natives employed it in the *cure* of *disease*, and that it was long in the hands of empirics! And were the unlettered Indians and ignorant empirics capable of using so potent a poison? The writer says, "*Lobelia is emetic.*" True, Lobelia is emetic, but when the stomach is cleaned sufficiently, it will remain in the system harmless and inactive; "*and like other medicines of the same class is occasionally cathartic.*" We have used it for a great number of years, and have never known it to have the least tendency to purge. "*It is also possessed of narcotic properties.*" The Lobelia has a salutary effect upon the nerves, but not in any form is it narcotic. "*Its effects in doses too large or too frequently repeated, are extreme prostration, great anxiety and distress, and ultimately death, preceded by convulsions.*" This statement is wholly and entirely false: there has never occurred one single death, either in this country or America, from the effects of Lobelia, either in the hands of the American Indians, or the hard-working people of Yorkshire and Lancashire. "*As an emetic it is too powerful, and too distressing as well as hazardous, in its operations, for ordinary use.*" This statement is also false: there is no emetic more powerful, less distressing or more harmless than Lobelia to the patient, and we are of opinion, that there is not a more hazardous one to the prospects of the faculty. The writer of the above quotation on Lobelia, might at that time be labouring under not only prejudice, but mistaken notions; but for the *Lancet* too, at this period of the progress of knowledge, it savours strongly, that it is not Lobelia that they are opposed to, but the system of Medical Botany, that we have had the honour to introduce into this country, and which is, in spite of their determined opposition, spreading far and wide, and being adopted by thousands to their advantage. We do not think it a crime to be ignorant when the means are not at hand, but when one remains ignorant of the truth, and then propagates a false principle by that means, *when he could have known better*, then the whole is a malicious *intention* and unworthy the conduct of a gentleman. In proof of the fact that those who write and speak so hard against the plant Lobelia, that their object is not to run it down, but to oppose us, let us but just quote from their own book their description of the properties and effects of tartarised antimony—"The effects produced by a poisonous dose of tartar emetic are, an austere, metallic taste, nausea, copious vomiting, frequent hiccup, burning pain at the stomach, colic, frequent stools, fainting, small, contracted and accelerated pulse, cold skin, sometimes intense heat, difficult respiration, loss of sense, convulsive movements, very painful cramps in the legs, prostration and death." Hooper, in his Medical Dictionary, says, "an overdose of tartar emetic acts similar to arsenic." WE

have said that an "overdose of Lobelia is only a *waste of medicine.*" If three times the quantity is taken that is required, it is thrown back with the common ingesta of the stomach; and if one half the quantity only is taken that would be necessary to vomit the patient, it is as harmless as milk, whether the person be in sickness or in health. We make these statements from the confidence of intimate knowledge, and we have the consolation to know that the many thousands who have read and believed our system, have been enabled to do a large amount of good to themselves and their families, whether they had been gas-fitters, ginger-beer-manufacturers or makers of calomel pills.

24, *Montague-place, Russell-square.*

NATIONAL ASSOCIATION

FOR THE PROMOTION OF SOCIAL SCIENCE AND MEDICAL PROGRESS.

To the Medical Botanists of the United Kingdom. Respected Friends,—

The prospectus of the above society, amongst other subjects for inquiry, contains the following:

"It would devolve on the Public Health Department of the Association, to consider the functions of government in relation to public health."

"To elicit by discussion the real elements of truth, to clear up doubts, to harmonise discordant opinions, and to afford a common ground for the mutual exchange of reliable information on the great social problems of the day."

Believing it would tend to our advantage to have Medical Botany brought under the notice of the Society, I put myself in communication with the Secretary, also with Dr. COFFIN, and with the Secretary of the Agents' Society, and it was agreed that a statement should be prepared to lay before the Association at Birmingham. I had the honour to prepare the paper, which has elicited the following notice from the General Secretary:

"The Secretary of the Board of Health department of the National Association has retained your paper, to be mentioned among the transactions of the meeting at Birmingham in our forthcoming Report."

It is therefore hoped that the paper, which is a brief exposition of the philosophy of our principles, and has received respectful attention from the National Association, that all who are interested in Medical Progress will exert their influence to extend its circulation, and make known and spread its principles.

The pamphlet will be ready in about a month, and will be published at a low price, to ensure a large sale.

Medical Botanists should be up and doing, as the faculty are straining every nerve to pass their Medical Bill.

Yours in the cause of progress,

JOHN STEPHENS.

PREJUDICE.

OF all the awkward obstacles that meet the best efforts of man for the benefit of his fellow-creatures, there is none so perverse as Prejudice. Crooked arguments, one-sided or illogical reasons, natural difficulties, seemingly antagonistic facts—all these, and many others, may be got over justly and fairly in the propagation of a truth or an idea; but once come against prejudice, and it's all over with you. You may shame the prejudiced man into silence; you may cut the ground from under him, you may beat him at every point, but still you are as far off as ever from convincing him: his prejudice remains, and unless you can make the Ethiopian change his skin, or can wash the blackamoor white, you cannot bring home truth to him who feeds on prejudice. If it is your lot exclusively to deal directly with either of the two chief parts of man's nature, you may waste a lifetime and be no nearer doing him any real good than you were at starting. If you have to work upon his soul—his spiritual part—upon his religious and moral nature; or if you seek to benefit his material or earthly nature, to shew him how to get from that the greatest possible amount of earthly or corporeal happiness —you may start with the gratifying prospect of having to combat every inch of ground, not with reason, not with intellect, not with common sense, but with a bugbear, a phantom, a will-o'-the-wisp, which eludes your effort to dispel—namely, a blind, substanceless, insane prejudice.

Now Medical Botany has in this its

most deadly enemy. The orthodox (?) system finds in it its firm friend and coadjutor. Prejudice expelled from the sum of human weaknesses, and the medical system of the day would cease to be. Explain the Botanic system in the clearest possible terms; prove from the current recognised works on physiology, and the most obvious and convincing experiments on the processes of life, the truth of that system; clench your theory with abundant testimony of facts—yet prejudice sticks to its position, and remains unmoved in the presence of a "cloud of witnesses." A poor sufferer has gone the round of the doctors, obeyed implicitly the conflicting instructions of the most respectable and talented of the faculty, and yet remains with all his ills unchecked. He comes, at last, to Medical Botany and is cured. What then? Something or other, this thing or that thing, a change of constitution, a turn of the disorder, an alteration of living, a trip in the fresh air, anything but *the* thing has done it. The means have been so simple, the effects so speedy, the pain nothing, that he must have been getting well before he tried it! A friend of ours the other day (to instance a cure in a simple matter as it springs readily to memory) was asked what would cure a scald-head? He gave a simple alterative herb-medicine, nice to the taste, and small in quantity, but frequently taken, and a little lard ointment to rub the head merely to keep off the action of the air. Five or six days did not send the eruption away, and the parents were recommended oil of tar and tobacco-ashes to rub on the parts, which they proceeded to do. In about a fortnight the disease diminished, and in a month or six weeks disappeared, the alterative having fortunately been adhered to. What cured the scald-head? Of course the oil of tar and tobacco-ashes, one or both, not the alterative medicine—that was only a teaspoonful three times a day.

Give a person complaining of sickness of stomach, bad appetite, giddiness, &c., a compound Lobelia pill three or four times a day, drinking cold stomach bitters freely—and he loses these unpleasant sensations, but not through these remedies — oh, no! He got a trip into the country, and the fresh air took away all his disagreeable feelings; besides, the pills never operated at all. If you gallop their insides out, people think there is something in your prescriptions; but give them something they never feel the action of, and although *they get well*, your remedies certainly have the merit of being harmless, but nothing more. On the other hand, if you give them an emetic, they will not prepare themselves for it, by getting warm first and drinking freely of warm drinks, so that the stomach may have something to act upon when muscular action is called into play by vomiting; consequently they suffer more from the stomach collapsing on itself. Then they cry out, "You nearly killed them, you poisoned them," and so on; though the very same people will go through a screwing bellyache under the operation of violent purgatives. Why, however, pain of the bowels, under the object of a "good clear-out" *downwards*, should be so much more deserving of esteem than pain of the stomach and "a good clear-out" *upwards*, it would puzzle them to say.

But the overwhelming fact is, Medical Botany is not recognised by the faculty. Its practitioners are not medically educated; that is, have not "walked the hospitals!" (and "walking" it is, with a vengeance! for there is no sitting down to learn, much less to think). They are men who have been brought up to trades and pursuits which make it impossible that they *can* know anything about physic. How came Lord St. Leonards, our great living lawyer, to know anything of law, beginning life, as he did, in a barber's shop or stable-yard, we forget which? How came George Stephenson to be the great engineer, when he began his career at the coalpit and with no education to start with? How came the father of the late Sir Robert Peel to be a great manufacturer, who sold milk in the streets of Blackburn? How came Wilson, the celebrated financier, who has just retired from the late ministry on a thousand a year, by his financial and statistical skill, who, for the greater part of his life, was a hatter? Oh! by hard study and perseverance. Exactly. And cannot

men in similar walks of life strike out into the paths of medical knowledge, and by the like study, observation and perseverance, attain an acquaintance with and a skill in practising in the cure of disease, which leaves the ordinary cut-and-dried professional, with all his knowledge laid out ready to his hand, as far behind as the above illustrious men did those who possessed advantages and opportunities they could not boast of? But we forget: we are speaking of prejudice; and "charm we never so wisely," the ears of such a serpent as that will never be opened.

What then is to be done? Go a head; persevere; heap fact upon fact; make a noise; stun the blockheads; hit hard—blows tell, if arguments do not. Be confident in the truth of your position; let no chance escape of throwing another lump of testimony, be it ever so small, into the scale of truth, and it must at last outweigh prejudice and bigotry. The balance will kick the beam, and the hungry and conceited members of an effete and deceptive profession, with their deluded followers, will either slide into your scale or tumble off into the abyss of oblivion. If botanical practitioners are only true to themselves, true to their principles, persistent in their efforts, courageous under persecution, good-tempered under calumny, untiring in the exposure of falsehood, united in action (oh! unity, unity! the watchword of strength); and if those who have benefited by their administrations will be faithful to the science that has bestowed the blessing of health upon them; if they will laugh at those "very respectable" people who prefer being killed by an M.D. or M.R.C.S. to being cured by a "herb doctor;" if they will always reflect upon the nature of the animal that cries "quack, quack," and support those who are quacked at; if they will consistently give credit to those who, amid evil report and good report, practise what they believe and know to be true; if they will give them in their own circle that position which as sincere and honest men they deserve—then *Io triumphans!* as sang the conquerors of old, for the millennium of true medical science is at hand!

CURE OF A SORE LEG OF FOURTEEN YEARS' STANDING.

Our Dublin correspondent writes: I am commissioned to thank you on behalf of very many poor sufferers for the relief they have experienced through my practising the precepts laid down in Dr. Coffin's valuable "Botanical Guide to Health." Among the many cases, one claims particular notice; namely, that of a woman who has had a sore leg for fourteen years, the wound, when I saw it, being two and a half inches long and more than an inch wide. She came to me on the 14th of October, 1857, and by the 28th of February, 1858, a perfect cure was made. Nothing could surpass her expressions of thankfulness for the cure, and, indeed, the gentleman who sent her to me states, that he considers it almost a miracle. S. R.

SUCCESS OF DR. COFFIN'S MEDICO-BOTANIC PRACTICE.

TO DR. COFFIN.

Dear Sir,—I feel it to be my duty, as well as high privilege, to inform you of the great benefit I have derived from your system of Medical Botany—a system which I believe is destined to supersede every other system of medical practice, as soon as mankind will think for themselves, and allow common sense to rule. It may be interesting to you to know how your name and system became known in Devonshire.

About eighteen months or two years ago, a person living in London sent a present to his friend in Devonshire: it was Dr. Coffin's "Guide to Health." If a few of your friends in London would do likewise, they might spread your system of Medical Botany over every county in England, and thereby confer upon their fellow men one of the greatest blessings that is possible to be conferred upon man by man. Mark the result of this one book in this neighbourhood. It was the right book in the right hands: it was read, studied and acted upon by its owner: success attended every case he took in hand. Willing that others should share this benefit with him, he began to lend his book from house to house; and thankful I am to say it came to me. I need

scarcely say that we were anxious to have a book of our own; consequently this book was followed by another and another, until the number attained to about forty copies of your "Guide to Health," besides all the other works that you have blessed the world with. It has led to the appointment of an agent at Chard, about twelve miles off, where we get supplies of herbs as we need them. Since its introduction into this county, hundreds have received benefit from it, and hundreds are adopting it as often as medicine is required. One of your grateful friends here has (with a view to make the system more generally known) placed one of your "Guides to Health" in a public library at Chard. He would suggest that your numerous friends may go and do likewise, until there shall not be found a public library in England that does not contain one of your "Guides to Health." About one year ago I began to read and study your work, and soon after I had to practise on my family. The first thing I was visited with was scarlet fever—a little boy of six years old—I cured him in about six days. During the past year, I have, by the blessing of God, succeeded in curing the following cases: *scarlet fever*, *violent inflammation*, *croup*, *quinsy*, *rheumatic gout*, *rheumatic fever*, *diarrhœa*, *indigestion*, *convulsions*, and a great number of violent colds and influenzas. I have not experienced a single case of failure that I have tried, and where the medicines were properly taken. I had one stubborn case: it was rheumatic fever on my little boy, from six to seven years old: it was a bad case: the rheumatism affected him much in both hands, both feet, both knees, shoulder and neck, and the fever very high. We treated him as instructed in your "Guide to Health:" we kept him in a perspiration about a fortnight, giving him an emetic of Lobelia, once in six or seven days. We saw that he was better the day after taking the emetic, but afterwards fell back again into the same state. At the fortnight's end, the fever seemed to increase, the breath grew shorter, and the pulse quicker every day. He breathed then about eighty to ninety times per minute, and his pulse beat one hundred and forty per minute. I became alarmed for my child, and wrote you for advice; two days after I received your letter in reply, the principal contents of which was "give him an emetic of Lobelia every other day for some time to come." We did so, and the second or third emetic carried away every rheumatic affection that was about him, the fever was quite subdued in three or four days, and in about ten days from the receipt of your letter, we had the gratification of seeing our child restored to health. He did not appear to be at all debilitated with the four weeks' perspiration, and about eight or ten emetics of Lobelia. I feel quite certain, had it not been for that *valuable*, most *valuable* of all medicines, Lobelia, my child could not have lived seven days longer. I have the greatest difficulty to get my friends to take Lobelia: it does appear that what the doctors have said or written about that excellent herb, has at least impaired the appetites of the public, so that many do not like to take it; but if the public knew the value of Lobelia as I do, they would take it whenever needful as freely as water. I have made and administered several pints of the acid tincture of Lobelia during the last year. I have given it freely to ten different persons with great success. I have taken into my stomach five full doses of the acid tincture of Lobelia before it operated: it had its desired effect, and very soon I was all right again. I hesitate not to say, it is my firm conviction that your valuable work has, during the past year, saved my pocket twenty pounds, and the life of two children; the one, as stated in this letter, a case of rheumatic fever, the other a case of convulsions. Allow me just to state in conclusion, it is now about four months since my boy recovered, and he has had no return of rheumatism since: this I mention because I consider it must have been a wonderful cure; and if you think this letter would be of any service to others, you can make what use of it you think proper, either in part or the whole, in your Journal.

I remain, dear sir,
Your humble and grateful servant,
Charles Crabb.

Yarcombe, Devonshire,
March 30th, 1858.

EXTRAORDINARY CURE BY MEANS OF BOTANIC REMEDIES.

TO DR. COFFIN.

DEAR SIR,—As I am always ready to do all in my power towards ameliorating the suffering condition of my fellow creatures, and having had ample proof of the superiority of your mode of treatment to that pursued by the medical men, it is with the deepest gratitude that I lay before the public the following facts, which may be an encouragement for some to seek relief even in cases considered the most desperate.

A daughter of mine had been ill and confined to her bed for the space of two years and a half. I spared no expense in obtaining what was considered the best medical advice. I had four regular doctors, besides others who made some pretensions to a knowledge of the curative art. Some affirmed she was labouring under a slow or intermittent fever; others said it was chronic disease or spinal complaint. A water-doctor of Melton, who was consulted latterly, ascribed his failure to do her any good to the strong medicines which he said had been administered by the medical men; ultimately, they all gave her up, and pronounced it a hopeless case. The medicines given never appeared to be of any service; on the contrary, they seemed to take away what little appetite she had. For five months she never took a particle of solid food—nothing but liquids could be swallowed—and, for a period of six weeks, she never tasted any thing but cold water. Her legs and body had become completely paralysed, and she had no power to move herself in bed.

Such being the condition of my daughter, every one who saw her, concluded that it was impossible for her to recover. Hearing, however, that Dr. COFFIN's system differed from all others, and that numerous cures were effected under it after all other modes of treatment had failed, I was determined, as a last resource, to give it a trial; accordingly I went over to Doncaster, to consult with Mr. King, your agent in that town, who, after hearing me recite my daughter's case, said he thought he could cure her, but that it would require some time, and that if I would promise to persevere, he would prepare the necessary medicines in as palatable a way as possible. He did so, and she commenced taking them forthwith, and in about eleven weeks she was enabled to walk across the floor. She is now, I am happy to say, as strong and healthy a girl as any in Thorne.

Feeling myself in duty bound to give you this small acknowledgment, I beg to subscribe myself

Yours faithfully and respectfully,

WILLIAM PLATTS.

Thorne, April, 5th, 1858.

THE INFLUENCE OF WHOLESOME DRINK.

(Concluded from page 252.)

ALTHOUGH there may be question and doubt as to the character of the influence this fiery substance exerts, when poured out to the living human frame, through the supply-pipes, in moderate quantity, and weakened by mixture with a large proportion of water, all question and doubt disappear, when its action in greater strength and in large quantity comes to be considered. An inquiring physician, Dr. Percy, once poured strong ardent spirit into the stomachs of some dogs, to see what would happen to them. The poor animals fell down insensible upon the ground directly, and within a few minutes their breathing had ceased, their hearts had stopped beating, and they were dead. Some of the dogs were opened immediately, and it was then found that their stomachs were quite empty. All the ardent spirit had been sucked out of them in a few short minutes. But where was it gone to? It was gone into the blood, and heart, and brain, and there it was discovered in abundance. It had destroyed life by its deadly power over those delicate inner parts.

Human beings are instantly killed when they swallow large quantities of strong ardent spirit, exactly in the same way as Dr. Percy's dogs. A few years ago, two French soldiers made a bet as to who could drink the largest quantity of brandy. Each of them swallowed seven pints in a few minutes. Both dropped down insensible on the ground; one was dead before he could be picked

up; the other died while they were carrying him to the hospital. A man in London, soon after this, undertook to drink a quart of gin, also for a wager. He won his bet, but never had an opportunity to receive his winnings. He fell down insensible, and was carried to the hospital, and was a dead body when he was taken in.

There can be no doubt, therefore, what strong ardent spirit, in large quantities, does for the living body. It kills in a moment, as by a stroke. It is a virulent poison, as deadly as prussic acid, and more deadly than arsenic. Even when it is not taken in sufficient abundance to destroy in the most sudden way, it often leads to a slower death. Striking illustrations of this truth are presented continually in every corner of even this civilised land. It has been fully ascertained that not less than one thousand persons die from the direct influence of ardent spirit, in the British isles, every year.

When people do not die directly upon swallowing large quantities of ardent spirit, it is because they take it so gradually that nature has the opportunity of washing the greater portion of it away through the waste-pipes, before any sufficient amount of it has gathered in delicate internal parts for the actual destruction of life. Nature has such a thorough dislike to ardent spirit in the interior of living bodies, that the instant it is introduced into their supply-pipes and chambers, she goes hard to work to drive out the unwelcome intruder. When men have been drinking much fermented liquor, the fumes of ardent spirit are kept pouring out through the waste-pipes that issue by the mouth, the skin, and the kidneys; the fumes can commonly be smelt under such circumstances in the breath.

When fermented liquors are drunk in a gradual way, but yet in such quantity that the ardent spirit collects more rapidly in the blood, than it can be got rid of through the waste-pipes, the fiery liquid produces, step by step, a series of remarkable effects, growing continually more grave, as more of the spirit flows in the channels of the body.

In order that all the actions of the living human body may be properly carried on, three nerve-overseers have been appointed, to dwell constantly in the frame and look after different departments of its business. One of these has its residence in the brain: that nerve-overseer has charge of the reason, and all that belongs to it. Another resides under the brain, just at the back of the face that nerve-overseer looks after all tha relates to feeling or sense. The third lives in the nerve-marrow of the back-bone; that has to see that the breathing and the pumping of the heart go on steadily and constantly. Of these three superintendents the brain-overseer and the sense-overseer are allowed certain hours of repose at night; they are both permitted to take their naps at proper times, because the reason and the sense can alike be dispensed with for short intervals, when the creature is put safely to bed, or otherwise out of harm's way. Not so, however, with the breathing and blood-pumping overseer. The breathing and the blood-movement require to be kept going constantly; they must never cease, even for a short interval, or the creature would die. Hence the nerve-marrow overseer is a watchman as well as an overseer. No sleep is allowed him; he must not even nap at his post. If he do, his neglect and delinquency are immediately discovered by a dreadful consequence. The breathing and blood-flowing, which are his charge, stop, and the living being, served by the breathing and the blood-streams, chokes and faints.

These three nerve-overseers have been fitted to perform their momentous tasks in the entire absence of ardent spirit, and they are so constituted, that they cannot perform those tasks when ardent spirit is present in any great amount. Ardent spirit puts them all to sleep. The reason-overseer is overcome the most easily; he is the most given to napping by nature, so he goes to sleep first. If more spirit be then introduced into the blood, the sense-overseer begins to doze also. And if yet more be introduced, the nerve-marrow watchman ceases to be a watchman, and at length sleeps heavily with his companions.

Now, suppose that you, my firmly knit reader, were in an unlucky moment of

weakness to turn aside from your usual course of temperance and sobriety, and to drink fermented liquor until its fiery spirit gathered in your brain, and put your reason-overseer to sleep, what, think you, would be the consequence? This would be the consequence—you would for the time cease to be a reasonable being. You would probably still walk about the streets, and go hither and thither, and do all sorts of things; but all this you would accomplish, not with a proper and rational knowledge of your actions. Your reason and understanding being fast asleep, while you were walking about, you would properly be living in a sort of brutal existence, instead of a human and reasonable one. You would have laid aside the guide who was intended to be your director in your responsible human life, and you would be rashly trusting yourself in a crowd of the most fearful dangers, all your responsibility still upon your shoulders, without the inestimable advantage of the advice and assistance of this experienced director. Like the brutes, you would then find yourself to be easily roused to the fiercest anger, and set upon the worst courses of mischief; you would find yourself readily filled with the most uncontrollable feelings of passion and violence, and liable to be run away with by them at any moment, and caused to do things that a rational creature could not contemplate without the deepest nguish and shame.

There is no lack of proof that human beings do the most brutish things, when their reasons and understandings are put to sleep by strong drink, while their sense-overseers and their animal powers still remain active. Every place and every day afford such in wretched abundance. One impressive instance, however, may perhaps be related with advantage. On the night of the 28th of June, 1856, two drunken men, whose names were James and Andrew Bracken, rushed brawling out from a beer-shop in one of the suburbs of Manchester. They ran against two inoffensive passengers, and in their blind and brutish rage, began beating them; one was knocked down and kicked about the head when on the ground. He was picked up thence a few minutes afterwards and carried to the hospital, where it was found his skull had been broken. The poor fellow died in the course of the night.

In the next assize court, at Liverpool, James and Andrew Bracken stood in the dock to be tried for their brutal act. The counsel who defended them said that it was only a drunken row, and there was no murder in the case, because, neither of them knew what he was doing. The judge and the jury, on the other hand, decided that this was no excuse, because they ought to have known what they were doing. They had laid aside their reason and become brutal by their own voluntary act, and were therefore responsible for any deed they might perform while in the brutal state. The jury returned a verdict of wilful murder against Andrew Bracken, and the judge passed sentence of death upon him, coupling the sentence with these words: "You did an act, the ordinary consequences of which must have been to kill. It was a cruel and a brutal act, and you did it wholly reckless of consequences. You have therefore very properly been convicted of wilful murder." The wretched man was removed from the dock shrieking for mercy, with upraised hands, and exclaiming, in heart-rending tones, "Oh! Mother! Mother! That I should be hanged." No doubt he was very much surprised to find himself a condemned convict and a murderer, and had never intended to be so. He had no spite against his victim, and had probably never even exchanged a word with him. No drunkard therefore, when about to put his reason to sleep by intoxicating liquor, should ever overlook the fact, that he will for the time cease to have control over his actions; and that when that reason awakes, he may find himself, like Andrew Bracken, a prisoner and a murderer. Whether he do so or not will depend on no will or determination of his own, but upon the mere series of accidents that will surround him while in his self-inflicted, helpless, and brutal state.

The case of Andrew Bracken, sad and striking as it is, by no means stands alone in the annals of crime. At the assize, held at Lancaster, in March, 1854, it was shown, that in that single court 380 cases

of grave crime had been detected and punished within a very short period, and that of the 380 cases two hundred and fifty, including nine murders, were to be directly traced to the influence of drunkenness.

But if having ceased to be sober, my strong-bodied reader, you did not happen to commit murder, or do any other act of gross violence while in the brutal stage of drunkenness, yet nevertheless went on swallowing more and more of the intoxicating liquid, until your sense-overseer was put to sleep as well as your reason-overseer, what do you think would chance to you then? Why, you would have ceased to be dangerous to your neighbours, and have become in a like degree dangerous to yourself. You would no longer have power to commit murder, or to do any other act of cruelty, because you would sink down on the ground a senseless and motionless lump of flesh. You would be what the world calls dead-drunk; but you would not in reality be dead, because the nerve-marrow watchman still continued at his post, and awake. The lump of prostrate flesh would still breathe heavily, and blood would be made to stream sluggishly from its beating heart. In this insensible stage of drunkenness, however, you would have ceased to be able to exercise any care over yourself. In it, the drunkard is sunk as much lower than brutal life, as the brutes are beneath reasoning life, inasmuch as he ceases to be able to exert the power which all brutes possess of perceiving the threatening of danger, and turning aside from its approach.

But yet again, rational reader, let us suppose that when you became for the time a lump of insensible flesh, you had already swallowed so much stupifying spirit, that there was enough to put the nerve-marrow watchman to sleep, as well as the reason and sense-overseers, before any fair quantity could be cleared away out of the waste-pipes of the body. Under such circumstances breathing would cease, and all heart-beating would stop. You would then indeed be dead-drunk in the full sense of the fearful term. Senseless drunkenness is dangerous to the drunkard himself, not only because he could not get out of the way if danger were to come where he is lying, but also because he of necessity is placed in an insensible state upon the brink of a precipice, from the depth beneath which there could be no return if he once rolled over. Whether he will ever again awaken from his insensibility, or whether his earthly frame shall have already commenced its endless sleep, is a question which will be determined by the accident of a drop or two more, or a drop or two less, of the stupifying spirit having been mixed in with the coursing life-streams. The man who kills a fellow creature in a fit of drunken violence, commits an act of murder; the man who dies in a fit of drunken insensibility, is guilty of self-slaughter. In its first degree, drunkenness is brutality; in its second degree, it is senseless stupidity, of a lower kind than brutes ever know; in its third degree, it is suicidal death. It will be felt that it is important this matter should be looked fairly in the face, and that there should be no reserve in the employment of words strong enough to characterise truly the fearful vice, when the statement is made that there are not less than seventy thousand confirmed drunkards known to be living at the present time in England and Wales.

It is now a well-proved and unquestionable fact, that a young man of fair strength and health, who takes to hard drinking at the age of twenty, can only look forward to fifteen years more of life; while a temperate young man, of the same age, may reasonably expect forty-five years more! The habitual drunkard must therefore understand that, amongst other things, he has to pay the heavy penalty of thirty of the best years of existence, for the very questionable indulgence that he buys. The doctor also has his sad accounts to give of aches, and pains, and fevers, and weakness that have to be borne by the intemperate during the few years' life they can claim. Whatever may be the true state of the case with the moderate use of fermented liquors, their intemperate use is a fertile source whence men draw disease and suffering. Intemperance is another of the influences whereby men cause sickness and decay to take the place of health and strength. The doctor has likewise, it must be remarked,

a tale of his own to tell concerning the beneficial power of fermented liquors, when employed as medicines in certain weakened and already diseased states of the body.

There is one earnest word which has yet to be addressed to those who have satisfied their consciences that they may with propriety indulge their inclination to use fermented liquors in moderation habitually. Have they also satisfied themselves that they can keep to the moderation their consciences allow? Have they taken fairly and sufficiently into consideration their own powers to resist urgent allurements? Have they well weighed the possible influence, in their own case, of the enticements which agreeable flavours and pleasurable exhilaration necessarily bring into operation? Have they sufficiently pondered upon the admitted truth that there scarcely ever yet was a confirmed drunkard who did not begin his vicious career by a very moderate employment of the seductive liquors? If they have done this, then let them still nevertheless go one step further and carefully determine also for their own case, what moderation is; and while doing this, let them never forget that when the thirsty man drinks a pint of table-beer, he pours a teaspoonful of ardent spirit into his blood; when he drinks a pint of strong ale, he pours two tablespoonfuls of ardent spirit into his blood; when he drinks four glasses of strong wine, he pours one glass of ardent spirit into his blood; and when he drinks two glasses of rum, brandy, or gin, he pours from three-quarters of a glass, to a glass, of ardent spirit, into the channels of his supply-pipes.

The habitual drinker of port wine has a more or less strong fancy that his favourite and so-called "generous" beverage fills him with "spirit" and "fire." This fancy is indeed not without some ground. Government has recently caused a very careful investigation to be made of the strength of the port wines that are furnished to the English markets, and the investigation has disclosed the startling and unexpected fact, that the weakest of these wines contain twenty-six per cent.; ordinary specimens of them from thirty to thirty-six per cent.; choice specimens forty per cent; and what are called the finest wines as much as fifty-six per cent. of proof ardent spirit. The port-wine-drinker therefore actually receives even more "spirit" and "fire" with his ruby drink than he is himself aware he has bargained for. There are rich flavour and delicious odour, no doubt, in his wine, and so much the greater is his danger. These serve only to conceal a wily enemy who is lurking beneath. A bottle of ruby port wine in the stomach commonly means half a bottle of poisonous fiery spirit in the blood, and heart, and brain.

CURE OF A HORSE BY LOBELIA INFLATA.

Dear Sir,—Having lately obtained the numbers of the Journal for the past seven or eight months (I had not seen it for upwards of a year), I am pleased with the improved tone and subject-matter it now contains. I only hope it may be found worth while to enlarge the number of its pages, or to reduce the size of type, so as to give more matter, and thus do away with a very common objection persons make to taking it—"why there is nothing of it." People in these days of cheap literature will have *quantity*.

I was much pleased with the stir about Lobelia; and if Lord Granville will be kind enough to read the following case, he will have a further confirmation of the not only nonpoisonous, but health-restoring effects of lobelia.

A five-year-old horse of a friend of mine suffered severely from cold, and at last caught a severe influenza. Its throat was very sore and tender, not bearing the pressure of the hand, and it had a bad cough. Its legs were perfectly cold, feeling like those of a dead animal. I mixed four ounces Lobelia with one ounce cayenne into balls (of course this would make several), and gave it half at a time, at an interval of about six hours between each lot. A warm mash or two between these, and the same after the last, was all that was done internally; and his legs were wrapped in wet cloths, with dry ones closely covering them. The next day the animal was well, inflammation of the windpipe gone, legs warm and glowing, and the animal as lively as you could wish. Before this he was troubled with

farciness (an eruption of the skin, very troublesome to get rid of); but the invigoration of the system by this one dose has thrown this off, and the animal has been so frisky and lively since that every one has remarked it.

A friend tells me of a horse he treated with Lobelia, whose constitution seemed quite broken, and yet it turned out to be a most valuable and fine-spirited animal, after the obstructions of the system were removed. It was sold for £15, and is now worth £70.

I have known cats, dogs, birds and pigs treated successfully with the wonderful life-giving herb. I take Lobelia and cayenne nearly every day myself, especially when I have much confinement to the house, and close application to desk-work; and recommend it strongly as a pure, friendly, and perfectly innocent stimulant.

Wishing you every success,
I am, yours, &c.,
A FRIEND TO TRUTH.

April 16th, 1858.

FORD'S
CELEBRATED TRICOPHEROUS.

The best-approved application for cleansing, beautifying, preserving and reviving the hair. It should be used by all persons recovering from fever, or any other illness, as it restores the tone of the cutical secretions, and gives a healthiness to the hair and skin.

Sold at W. B. FORD'S Establishments, 134, High Holborn, and 24, Union Street East, Spitalfields, in four-ounce bottles, at 1*s.* 3*d.* each.

Will shortly be published,
MEDICAL PROGRESS,
DEDICATED BY KIND PERMISSION TO THOMAS S. DUNCOMBE, ESQ., M.P.

The contents of this forth-coming pamphlet were agreed to by a Committee of Gentlemen (Medical Botanists), nominated by Dr. COFFIN and the Author; also by the Committee of the Agents' Society in connection with Dr. COFFIN: the latter Committee advised its publication.

The price will be low, to ensure it a world-wide circulation.

J. STEPHENS,
Eight years accredited Agent to Dr. COFFIN, for Ratcliff, Shadwell, Limehouse, Stepney, Poplar, and the surrounding districts, may be consulted daily (gratis), at 108, Ratcliff Highway; and of whom may be had all the Herbs, Roots, Barks, Powders, Pills, and other Medicines used in the practice.

Visits to Patients, 2*s.* 6*d.*, in advance.

In No. 255 of our Journal, an advertisement of Mr. Brockies appeared, announcing his being the only Accredited and Authorised Agent for East and West Hartlepool. Our Editor, not knowing that

CAPTAIN JOHN NAYLER,

of St. Hilda-street, Old Hartlepool, was Accepted Agent for West Hartlepool, allowed its insertion. Captain John Nayler not only was our Agent in 1850, but also is our Accredited Agent for West Hartlepool, who continues to dispense all the Herbs, Roots, Barks, Powders, &c., used in Dr. COFFIN'S Medico-Botanic System of Medicine, of whom also may be obtained all Dr. COFFIN'S Medico-Botanic Works.

JOSEPH NADEN,
Sole Agent for Dr. COFFIN, 204½, *Shales-moor, Sheffield*,
Keeps constantly on hand all the Remedies used in Dr. COFFIN'S Practice; also Dr. COFFIN'S "Guide to Health," "Treatise on Midwifery," "Treatise on the Generative Organs," "A Course of Twelve Lectures," and "Botanical Journal."

Mr. NADEN is not in the habit of *adulterating* the Remedies he sells, and, therefore, they cannot be sold *so cheap* as those that are.

G. CALDWELL,
Surgeon and Practitioner of Medical Botany, Proprietor of the Botanic Dispensary,
34, WORCESTER STREET,

Sole Agent for Dr. COFFIN in Birmingham, from whom all the Herbs, Roots, Barks, and preparations used in the Botanic Practice, can be had genuine.

Mr. CALDWELL may be consulted daily, from 10 to 12 in the morning; from 2 to 4, and from 6 to 8 in the evening (Sundays excepted).

NOTICES.

Dr. COFFIN may be consulted gratis, as usual, every Saturday evening, from four to eight o'clock, at the Botanic Establishment, No. 24, Union-street, East, Spitalfields. *Patients not admitted to the waiting-room after eight o'clock.*

Dr. COFFIN may also be consulted at his residence, 24, Montague Place, Russell-square, daily *(Sundays excepted)*, from one to two o clock (fee one guinea), on any day except Monday, on which day the fee will be five shillings only.

Advice gratis, every morning, from ten to one o'clock, at the establishment, No. 134, High Holborn, nine doors from New Oxford-street, nearly opposite the London and Westminster Bank, Bloomsbury Branch.

NOTICES TO CORRESPONDENTS.

All letters should be addressed, "To the Editor of the Botanical Journal, 134, High Holborn."

POST-OFFICE ORDERS and all communications for goods, &c. to be addressed to WILLIAM FORD, 134, High Holborn.

The real name and address of the writer of a letter must be given in confidence.

The Botanical Journal and Medical Reformer is published Fortnightly, at No. 134, High Holborn, London, where all orders must be addressed.

COFFIN'S
BOTANICAL JOURNAL
AND
MEDICAL REFORMER.

"Human experience, which is constantly contradicting theory, is the great test of truth."—Dr. Johnson.

No. 261—Vol. VIII. SATURDAY, MAY 15, 1858. Price 1d.

THE PETITION OF THE MEDICAL BOTANISTS.

Our Agents, and all those to whom Petitions have been sent, are requested to finish and send them to the Members at the House of Commons as early and as quickly as possible, minding not to lose signatures, or time in procuring them, as it is necessary that the Members of Parliament should have them for speedy presentation.

THE MEDICAL MONOPOLIES.

There is, and has been for several years, a determination on the part of the medical profession to get some legislative enactment to put a stop to the progress of medical inquiry, and to prevent, if possible, any innovation upon their theories and systems. Why this is so we cannot conceive; for in all the sciences and arts the perfection they have obtained has been progressive. There is not one *new* or improved principle, even in the medical world, but what has been discovered by some one who has been considered by the profession an *innovator*. Lord Bacon observed, that the reason the science of medicine had not progressed like other sciences, was, "that physicians had reasoned in a *circle*, and not in a *line*:" in a word, that they had followed in the footsteps of their fathers. It continues the same now as in his days, and the greater the benefit the greater the opposition; and when they find that the spirit of inquiry is abroad, that the great mass of the people are being tired of the *bleeding* and *poisoning* practice, and are turning their attention to *Medical Botany*, *Homœopathy*, or anything that seems to promise a better system than the old, they seem determined, if possible, to *unite* all their powers, and induce Parliament to give them, what they cannot obtain by fair competition, a position and power to hold the keys of the health of the people. We have again and again been by them denounced a quack; that is, a man ignorant of what he professes—a pretender to a science of which we are unacquainted; yet not one of them, for these last twenty years, has come forward to meet us in our public expositions that we have made throughout the length and breadth of the land; and on every occasion, when any one has died that has taken our medicines, it has been a fixed determination to make it appear that the said medicines had caused death, even oftentimes at the *expense of truth*; but hitherto they have entirely failed. The profession, or their organs, are now resorting to low and vulgar misrepresentations, to bring us into disrepute, if possible; such, for instance, as the following, which we copy from the *Lancet*, of the 1st inst.: "The Rights of Medical Practitioners—a New Dodge.—On Wednesday last, Mr. T. Duncombe obtained leave, in the House of Commons, to introduce 'A Bill for Defining the Rights of Members of the Medical Profession, and for the Protecting the Public against the Abuse of Medical Corporations.' This certainly is a most extraordinary undertaking; and if it be true, as reported, that the notorious Coffin, the lobelia man, is the attendant and adviser of Mr. Duncombe, we may expect

to see a Bill directly hostile to the best interests of the profession, and at the same time directly in favour of quacks. Is Mr. Duncombe prepared, at the next election for Finsbury, to encounter the most formidable medical league that was ever constituted in an English borough?" The above paragraph we think savours strongly as having emanated from the "notorious" Wakley, *the Crowner man*, who has been a constant opponent to us. But so far are we from having anything to do with the bill that Mr. Duncombe intends to bring in, that we did not see it or know anything about it till it was embodied ready for presentation. But had we been consulted or had any direction in the bill, we should indeed have brought in a bill that would have been hostile to all MONOPOLIES: we would introduce a bill that would have given every physician the right and privilege to rise upon his *own merits*, upon his own success, and we would allow the public to be the judge in physic as in trade. Everything in life seeks its level, and if the medical faculty *could cure the sick*, how long would the "notorious COFFIN" and his followers exist? And how would it be possible for what they term quacks to live in the light of truth? If the tradesman to whom you confided a job of work should spoil it, and you were satisfied it was done through ignorance, would you again employ him? Dr. Rush says, "that physicians often blush at their prescriptions on a *post-mortem* examination, by finding they had been mistaken in the pathology of the disease!" Dr. Bailey said, "he was not sure but he had *killed* more than he had cured;" and many more might be quoted to the same effect. We think that Medical Botanists could not do worse than is acknowledged by the extracts we have given above. As to the threat held out to Mr. Duncombe, it is almost too contemptible to notice, only that as far as we know him he regards it as the idle wind, and he, Mr. Duncombe, will not be any more disposed to have again recourse to the poisoning experiments of the faculty, or be intimidated from fearlessly doing his duty both to his constituents and his conscience. We, as Medical Botanists, are daily performing cures on the sick, that have been abandoned by the faculty; and intend to ask of Parliament at its present session, to grant us the rights and privileges of the medical profession, or at least to stand or fall before an enlightened public, by our merits or the merits belonging to our system of Medical Botany. We shall resume the subject in a future number.

24, *Montague-place, Russell-square.*

ANOTHER TRIUMPH

OF DR. COFFIN'S MEDICO-BOTANIC SYSTEM,

Exemplified in the Acquittal of our Agent Mr. George Young, of Blue Row, near Bishop Auckland.

THIS case, as usual, proves the same desire and determination to bring contempt, distrust and suspicion upon the Medico-Botanic system of Dr. COFFIN, but with its accustomed result, namely, perfect exemption from merited blame, demonstrating what we have so frequently asserted, that "the more our system is tested, examined and acted upon, the more it is esteemed, appreciated and adopted."

We now proceed to give a few of the introductory remarks from the Durham paper, and append our remarks thereto.

First.—The writer observes, that, during the "fortnight's attendance of Mr. Hutchinson, surgeon, of West Auckland, he applied proper remedies, but without effect." What proof, then, was there that the medicines were proper? for at any rate they failed. More could not be said against the remedies used by Mr. Young. And then the writer enters into a tirade against Mr. Young, for presuming to undertake a case of so dangerous a nature, "when medical skill failed." What! medical skill fail, though backed with all the learning of the schools, and bolstered up with a diploma? Truly the somewhat "famous local quack," Young, with all his ignorance, could not have done worse.

The gist of the matter plainly lies here: Dr. COFFIN frequently, and his agents often, are called to attend a patient, not only after the regular practitioners have failed, but when the patient, through their tinkering, their mineral poisons and depletory treatment, has been brought so low, that there is scarcely any and

often no vital energy left for our botanical medicines to stimulate it to throw off the disease, and the patient sinks. Who gets the blame? Not the regular practitioner, who deserves it, but the poor agent: all the burden of the other's failure is thrown upon his shoulders, and he is made the "scapegoat" for the delinquencies of others. We, the Medical Botanists under Dr. COFFIN'S system, again say, iterate and reiterate, "Give us the same chance as you give the qualified, lecture-hearing practitioner; send for one of us when disease has first set in; and we shall not fail, we have not failed, and defy our calumniators to prove the contrary. Multitudes of patients we have cured, have restored to pristine health the suffering patient, when the skill of not only one, but in several instances two or three medical men have signally failed. If, then, we are so successful in this, the major case, surely by parity of reasoning, we must be successful in the minor case of application to us when disease has first set in.

Does Mr. Hutchinson's failing to give relief prior to his dismissal prove that he could have done better than Mr. Young? Certainly not.

We agree with the statement made, that there is every reason for regretting that any portion of the public should employ unskilful and unscientific quacks (and we may add *scientific quacks)*, neither qualified by experience, information nor research, more particularly in cases which defy the skill of the most proficient.

We do not agree that Young's evidence proved him to be one answering to the above description. His evidence, upon which the above observations assume to be founded, proves the reverse. We inform the learned writer of the article, that he apparently does not know the meaning of the word "quack;" also that Dr. COFFIN'S agents are not quacks (quackery more especially belonging to the faculty). On the contrary, they are men well versed in the symptoms and cure of disease; men who *are* qualified by experience, information and research, to practise the healing art: with what success let their innumerable cures testify. The writer also thinks the jury very properly censured Young for undertaking a difficult and dangerous case, for which he was in no way qualified. Indeed! Now we would ask, if Dr. COFFIN'S agents had not undertaken difficult and dangerous cases, and those, too, after having been given up by the regular faculty, numbers now would have been in their graves who are living to bless them and Dr. COFFIN; and in this particular case, so far as the disease was concerned, Mr. Young was as much qualified as Mr. Hutchinson (excepting the diploma), and even somewhat more so, for he, according to evidence, did give relief from pain. Mrs. Blayer states, that Young gave Mrs. Wooler an injection which did her good. Mr. Hutchinson gave her an injection prior to Young; so at any rate, wright or wrong, they both did the same. Young next gave some medicine, and followed up the means until he completely eased Mrs. W. of all pain. So far this was good. Mrs. B. also states that she thought Mrs. Wooler got better from Young's attendance, but sank again. Why? By getting cold, or, in Mrs. B.'s language, getting a "wass of cold." Was Young to be blamed for this untoward circumstance, which no doubt accelerated Mrs. Wooler's death? We opine not.

Mr. Hutchinson, unlike the generality of our opponents, gave his evidence without either directly or indirectly saying anything that could be prejudicial to Mr. Young. We give Mr. Young's evidence at length, which for plain, straightforward honesty is highly creditable.

George Young, of Blue Row, near Bishop Auckland, said: I attended Mrs. Wooler on the 2nd March. At the time I went, I found her very much exhausted, very nervous, and very cold, and in a clammy sweat. She requested me to try and do something for her, and asked me first if I thought I could mend her. I told her that she appeared to be in a dangerous state, but I did'nt know; maybe I could give her ease, or something of that description; as to mending her, I couldn't tell. I asked her what Mr. Hutchinson said of her, and she said, He is completely done with me. Then I said, We must have something done, and that quickly, to restore you. I went home, and about twelve o'clock, on my return, brought a powder to mix with an injection, which

was given to her, and relieved her bowels. The clammy sweat then left, and a flush appeared on her face. About two hours afterwards, I gave her another, and it had a similar effect. She continued to improve, with a little strengthening medicine, until the Tuesday night following. On that day, I believe she had eaten heartier than she should have done, and appeared to be wandering in her mind, and her head seemed to be affected. Vinegar cloths were applied to her head, and relieved her a little. I then recommended her to be kept as quiet as possible. The next morning I went along, and found she had been much excited, and had to be kept in bed. I administered another injection, which relieved her. When I returned she was a good deal worse, and very unruly, and wanted to get the upper hand, until she went into an hysteric fit, and expired in it.—By a Juror: It was three o'clock when I arrived the last time, and Mrs. Wooler died about four. The first injection which I gave brought something black away, which Mr. Wooler said was opium. I didn't examine it, because it was candlelight. I would not like to give my opinion that way. In my opinion it was opium.—By the Coroner: There were half a dozen pieces, something between the size of a bean and pea. These were destroyed. My powders were composed of Lobelia, barberry-powder, ginger, and cayenne pepper. Told Mr. Wooler I thought it was opium that had come away, and I asked how it got there. Mrs. Wooler said Mr. Hutchinson gave her opium and starch injections. [Several jurors suggested that if it was administered in solution, it could not get into a solid state.]—The Coroner: Was it thrown out immediately? Yes.—A Juryman: Do you suppose there was sufficient opium to poison? [Several jurors here expressed their opinion, it must have been given in a solid state.]—In answer to the Coroner, Young said, opium was a thing he never made his mind up to.—Didn't you express to Mr. Superintendent Brown an opinion that there was sufficient opium to cause death?—[Mr. Brown: He said there was from a quarter to half an ounce.]—By the Coroner: I think she died from exhaustion, and that was the state I found her in the first night.—A Juryman: Is there any medicine at the house? This is it (producing two bottles nearly full), and part of which I gave her.—What made you bring it away? I did'nt do it with the intention of concealing it. I took it merely on account of the bottles. As soon as I heard there was a noise about it, I set the bottles aside. This lesser bottle contains the tincture of cayenne and myrrh, and which I administered as a strengthening medicine. There was a little diarrhœa at the time. I gave it first on the Thursday. I made up my own medicines. I don't know whether it is usual to enter prescriptions. Mrs. Wooler complained to me that Mr. Hutchinson's medicine had made her as she was. I did'nt examine it, as I had nothing to do with it; I never attended Mrs. Wooler before that time.—By a Juror: I am in the habit of taking all the spare medicine back from my patients.—You say you attended Mrs. Wooler, and she seemed to be improving on Tuesday, and on the Wednesday afternoon you say she died from exhaustion; how can you reconcile these statements? The system was getting clear, and she was beginning to eat on the Tuesday heartily, and was clear of pain.—Did you understand what ailed Mrs. Wooler? I think it was pleurisy from the commencement.—Don't you think it an incautious step to follow medical men? Not if I can do good. The symptom of pleurisy is a pain in the chest.—How does it terminate? The pain leaves them (a laugh).—Will they die? If they are not mended they must.—By another Juror: Do you think yourself capable of taking such cases? Yes; I have a good many such cases.—What qualification have you? *I hav'nt passed college or got a diploma, but I don't practise in minerals.*—Did you study medicine, and serve an apprenticeship? *Oh, no.*—Have you studied diseases of all kinds? *Yes.*—Do you understand the anatomy of the human frame, and have you attended lectures on the subject? *I have read but not attended lectures; we may hear with our ears, but if we don't understand, it's no use. There is as much to be learnt from a written as a delivered lecture.*—Your qualification is a knowledge of the dis-

ease? Yes.—Why did you take the bottles away? Because they would serve again. Mr. Wooler said I might take them.—The Coroner: Did you expect the case to terminate fatally? No, sir.—Did Mr. Wooler? Not until Tuesday night, I dare say.—Was he kind to her? Very particularly, sir.—Does he know anything of medicine? He seems to have a knowledge of it.—Did he suggest any particular course of treatment, or anything? No.—Was there opium in your injections? No, I don't use it.

Mary Calvert states: My sister was a very delicate person. Young's attention was satisfactory; nor did we blame her at all when taking Young's medicine. She generally felt composed after.

The Coroner states in summing up: The jury's verdict would have to be, "natural death," unless they saw that something had been given to Mrs. Wooler which had occasioned her death. It appeared that up to the time Mr. Hutchinson ceased to attend Mrs. Wooler, and since Young went, there were no symptoms that anything had been administered. They had the fragments of a bottle before them, which they might examine, given by Young. He had little doubt that many people lost their lives by a similar course of treatment; and only lamented that the friends of the deceased had sent for a person who had not the means of obtaining an accurate knowledge of medicine. Young was in a most responsible position, and there was not the least excuse for him. He censured persons for employing men not acquainted with medicine, showing gross ignorance in doing so. There was nothing in the case which they could bring home to any one. He was satisfied about the opium being more imaginary than real, as Mr. Hutchinson said he never gave it except in solution. If they had proof that Young, without proper qualification, had undertaken to administer medicine not knowing the effects, and the treatment had resulted in death, then he would be guilty of manslaughter. The question for them was, how Mrs. Wooler came by her death. From the serious reports that had got abroad, he felt it his duty to come there and consider the cause in order that the public might be satisfied.

The jury then retired, and after some consultation, one of them asked the Coroner if he would caution Mr. Young for administering medicine without knowing the effect.

The Coroner said the public were more to blame for employing such men.

Mr. Young was then called in, and the Coroner read the following verdict:—"The majority of the jury are in favour of accompanying their verdict with a few words, touching Mr. Young. We find that Mrs. Wooler died from natural causes; nevertheless, there is sufficient evidence to convince us that Mr. Young is not sufficiently acquainted with the properties of the medicines he used."

The Coroner, addressing Mr. Young, said, the jury had found that he had not the proper qualification required by Act of Parliament, and a great responsibility rested with him unless he knew the properties of medicines. If any dangerous medicine was proved to have been given, and if this had been the cause of death, then he would have been guilty of a criminal offence. He cautioned him for practising without the proper qualification or diploma. Neither he (the Coroner) nor any one else wanted to interfere with him if he had that qualification, but when he (Young) interposed his opinion against those duly qualified, then he incurred a grave responsibility. If any medicine had been given to cause death, he would have been amenable to the law.

We deny the inferences of the summing up, for Young had the means of knowing the qualities and action of the medicines he used, gained in that unerring school, experience, and has also attained a sufficient knowledge of Dr. COFFIN'S glorious botanic system and medicines, which has enabled him to cure even when allopathic skill has failed.

Yet, after all this, the long-headed jury desired Young to be censured—for what? Because he knew and practised the reverse for which he was censured; and the Coroner, in his wisdom, censured him accordingly, at the same time cautioning him against practising without a diploma; when the mere possession of that document, as we have so often seen, is no criterion of skill in the cure of disease,

but merely a protection for and a cover to ignorance and allopathic quackery.

We now leave the case in the hands of our readers, who, we have no doubt, will clearly see that the case is another triumph of our principles.

ILLUSTRATIONS OF MEDICAL BOTANY.

WORMWOOD.

DESCRIPTION.—Wormwood is a perennial herb. Its root is thick and woody—leaves very much indented. In summer it throws out several woody stalks, about three feet high, full of white pith, with small leaves growing out, and but little indented: the flowers rise among these in loose spikes, are of a brownish-yellow colour, and grow many together.

PLACE.—Ditch-banks, waysides, country churchyards, &c.

TIME.—It flowers in July and August.

QUALITIES.—It is a very pungent bitter, is an excellent tonic, and a good vermifuge. A decoction made with one ounce of the herb to one pint of water corrects the stomach and liver and creates an appetite: it also acts as a diuretic.

DOSE.—Two tablespoonfuls three times a day.

A DANGEROUS ABSCESS CURED BY BOTANIC TREATMENT.

To the Editor of the Botanical Journal.

IN gratitude to the great Giver of all good, and to Mr. Lacey, of the Wyle Cop, Shrewsbury, medical herbalist, agent to Dr. COFFIN, the instrument in his hands, I desire to make my case known to the public, that any person placed in similar circumstances may know where to apply for help. By his treatment alone I have been saved from the jaws of death and the devouring grave.

When I first applied to him, I had been labouring under an abscess in the groin, extending from that part four or five inches over the hip-joint (a most awful wound). I had been in this state for about two years, the discharge being usually from half to a whole teacupful of blood and matter every day, independent of about a quart which collected in a kind of bag in the bottom of the wound about every month or six weeks. This immense discharge for so long a time so reduced me, that I fell into consumption, and a most dreadful state of weakness of the whole nervous system: indeed, to such an extent was I reduced, that my life was a perfect daily burthen to me, and I almost longed for death; but the kindness of God in his providence had ordered otherwise. I had been under the care of two of the most talented medical gentlemen in Shrewsbury. I had been under the care of two of the most eminent in Chester, three in Liverpool, and several in Birmingham, beside those in my own neighbourhood, but all of no avail, and was given up as completely incurable by the whole of them. At last I was vomiting up blood almost daily; and I was told by those I now employed, and indeed I felt that I could not last much longer. At this time I was so much reduced that I could scarcely get out of bed at all, and now the doctor in my own neighbourhood advised me to prepare fully for my departure from this world, as it was quite imposible for me to last many days. Of the other doctors I had been under, some said that bones would come out of my side; and others said, that even if it were possible to heal the abscess, which it was not, it would cause me to go off in a rapid consumption; but I have since found that with them all was a failure, because I believe they knew not the cause of my complaint. At length I was advised by a friend to see Mr. Lacey. He had heard a great deal of talk at different times of many wonderful cures he had performed, and I resolved that, if my strength would hold out, I would go and see him. I did not at that time know that he went to see persons at their own homes.

I left Llansaintfraid upon a pony and rode to Oswestry, as there was no other conveyance I could go by. It took me six hours to ride there (eight miles), but when I arrived there I was so completely exhausted by the journey, that I was obliged immediately to retire to bed, and remained there two days, before I was able to proceed by train to Shrewsbury (twenty miles). I had previously kept my bed for about a fortnight, but determined, if possible, to try one more effort towards finding relief.

I, however, arrived in Shrewsbury. I

WORMWOOD.

saw Mr. Lacey. He examined me, said he thought I was not past recovery, that he had cured several abscesses quite as bad as mine, and that if he could only keep my strength up to what it then was, he thought he could make a thorough cure of me, but that I must pay the strictest attention to every direction he gave me, or he was sure he could not cure me, and should have no more to do with me if he knew me to fail in any one thing he ordered.

Joyful to hear such an opinion expressed by him, after so much suffering for so long time, I promised the most implicit obedience to all his orders. I believe I kept my promise to the very letter, and soon began to feel myself mending. I continued to improve gradually daily, the discharge began to abate, the abscess in process of time was healed up, my lungs returned to their former state, my breath became quite good, my nervous weakness all dissipated, and entire strength of mind and body was fully restored to me. And be it remembered, this was all entirely effected by the herbal medicines alone; for whilst I was under Mr. Lacey's care, I took nothing whatever besides what he gave or ordered me, nor did I omit taking or doing anything whatever that he wished me. And now, by the blessing of God upon the means he made use of, I can safely say, without the least fear of contradiction, that if I am not the strongest man in Llansaintfraid, I am at least one of the very strongest, and have been so ever since I have been cured, which is now between two and three years, which it must be allowed is quite long enough to see whether the cure was permanent or not. I must here say, that I have not, at any time since my cure, had the least feeling whatever of any of my old symptoms, or of anything connected with them, but enjoy still the most perfect health; and beg to subscribe myself, Sir,

Your obedient servant,

THOMAS RICKETTS, Builder.

Llansaintfraid Mechain, Montgomeryshire, North Wales, June 3rd, 1857.

I may here say, that when I was under the medical gentlemen, before I saw Mr. Lacey, I took a great deal of cod-liver-oil, with a great variety of medicine from them, and was ordered to drink a large quantity of ale, porter, bitter beer, port wine, brandy, &c., &c., in fact, I was ordered to drink as much as I possibly could of them, in order to keep up my strength against the discharge; but when I went under Mr. Lacey's care, he at once took them all from me, and proved, to my full satisfaction, that they could not accomplish that object, as they could not give any strength at all, and this he showed by rapidly giving me strength without any of them, and doing it by his medicines alone. I can assure the reader that he would not allow any of those gentlemen to keep company with his medicines, nor even to show their faces. One circumstance, which very much strengthened my confidence in Mr. Lacey, was that at my first interview with him, he referred me to a young man living in Shrewsbury, whom he had cured of a running abscess in the abdomen, after he had been under the care of one of the first medical gentlemen in Shrewsbury for above two years, without deriving any benefit whatever from the treatment. Mr. Lacey made a perfect cure of him in about three months. At the time Mr. Lacey first saw him, he was going very rapidly into consumption, but was at that time quite a strong young man, enjoying first-rate health.

LIGHT.

WE will now devote a few words to the subject of light, and they are offered because people generally think so little of those phenomena around them, to the influences of which they are so habitually exposed.

In the same manner that persons who are continually singing and talking, are the least aware of the importance of those exercises to the human economy—improving the health of those who have been condemned to silence and solitude, or killing those who suffer from diseases that require rest—so those who enjoy the purest rays of light, are those often the most blind to its powerful effects.

It is not merely that the eye, anxiously accommodating its powers to its privations, and enabling the prisoner to distinguish objects in what appears to

us the densest darkness of his cell, will be struck blind by the splendour of a day when he comes forth, as many others are by the too vivid brightness of lightning; but the light of the sun appears, as it were, to feed the human body. Removed from it, the body grows pale, exhausted and bloated, scrofula, and many other complaints depending upon a want of tone, are generated. In this respect, we are not unlike plants, which we see, when forgotten in a cellar, grow branched and sickly, shooting out rapidly their feeble and flexible stems, nor resuming anything of their distinctive colour, until some leaf can expand itself eagerly towards the light of a crevice.

Among human beings, it is not unhappily those only who are condemned for their crimes to seclusion, who prove to us the injurious effects of the absence of light. The unfortunate beings doomed to work for us in the bowels of the earth, are living illustrations of this fact; but those who inhabit large cities, have still nearer evidences; in the dark and narrow streets and lanes, in the windowless houses, in dark kitchens and cellars, too many, particularly the infantine and young, confess the absence of that influence which imparts the beautiful hues to the human cheek, as to the varied creations of nature, and which, combined with heat, sets a distinctive mark on the natives of different parts of the globe. That which might compensate the absence of this stimulant, is that which those so deprived are least likely to obtain—abundant and nutritious food.

SPREAD OF MEDICAL BOTANY.

TO DR. COFFIN.

DEAR SIR,—I have had your advice three times on behalf of others, without forwarding the fee as I ought to have done. However, I kept it in view, and I now forward you a postoffice order value two guineas, of which one guinea is for your advice on behalf of Mr. Thomson, which you ordered the medicine for, and the other is from Mrs. MacLean. I troubled you twice about her case, but I only charged her one fee for you, as I thought it was all that her circumstances could afford.

Mr. Thomson was not able to take the medicine as prescribed, and is dead. Mrs. MacLean is now enjoying excellent health and spirits, to the astonishment of all who knew her during her illness. Her case has spoken volumes on behalf of your system of treating disease, and the remedial agents you employ. Since her recovery, I have had numerous applications for your botanic medicines, and the success which has attended them is truly marvellous. I have drawn from your stores of knowledge, experience and medicine, and given to all who sought it; and from the many cases I shall mention three. Two of these cases was persons who had been treated by the faculty for consumption, upwards of fifteen months, without any benefit. When I first saw them, one of them was expectorating more than a cupful every night, and the other did not begin to expectorate until he had taken the botanic medicine for a few days. They had both youth on their side, and within seven weeks from the time that they first took the medicine, they were admitted to be recovered and fit for duty. The third is the case of Mrs. Donald from Cluness. She is about forty years of age, had twelve of a family, and suffered from piles for nine years. During the last two years she has scarcely been able to walk about through the day for weakness, nor lie in her bed through the night for pain, which began in her right leg, and rose up till it sometimes reached her shoulder. She was attended by two of the doctors, who ordered her to take laudanum, in sufficient doses, to allay the pain; but as this failed as a remedy, they said they could do no more for her, unless they were allowed to put an issue betwixt her shoulders; but this she declined, and came here to try the botanic medicine. She landed here on Saturday afternoon, and had medicine as prescribed in your "Guide to Health," for such cases, and strange to say, she slept well the first night, and rose fit for breakfast next morning, and did not again feel the least pain either by night or day. She left on the following Tuesday, with a supply of medicine, and instructions how to use it, and now enjoys health and strength. I think I could do the world better service by

distributing your medicines than by farming; and were I fully convinced of this, I would come to London for some time, in order to acquire some knowledge of the different forms of disease, and preparing medicine. With my best wishes for your welfare in every respect,

I am, dear Sir,

Your obedient servant, G. W.

Newlands Finhoug, by Aberdeen,
5th April, 1858.

ADAPTATION OF EXERCISE TO MENTAL CHARACTER, AGE AND SEX.

A NEGLECT of apportioning the kind and the degree of exercise to the powers, and constitution, and other peculiarities of the individual's physical state, is the reason why the whole value of exercise as a remedy for and a preventive against disease, has never yet been derived, and never yet been appreciated. Exercise is enjoined, and, no matter what the patient's constitution—no matter what his habits of life—no matter what his complaints, it is enjoined, or thought to be desirable, that he should walk so many miles *per diem*, or use dumb-bells of a certain weight, and for a certain time, every day. Such is a most impolitic, a most irrational, and a most injurious practice. Its extreme and very general prevalence, and a hope that something may be said about it that will be new to the reader, unite to make us enter into it at somewhat greater length.

The character of people's minds differs so much, that the kind of exercise, to render the prescription palatable, and therefore give all possible chance of its being adopted and persevered in, must be adapted thereto. There are some minds of so grave and staid a character, that to recommend to such the skipping-rope, the battledore, and shuttle-cock, or any other of what are ordinarily used and thought of as playthings, would be construed by those persons into an insult, or be treated with contempt; and, most assuredly, the injunction would never be attended to by them: and yet these individuals might be induced to ride on horseback, or to use Hindostanee clubs, or, in fact, to do anything else which would not, according to their ideas, seem to have anything childish or ridiculous attached to it. There are, on the other hand, persons of a different mental temperament, who could not be induced to take any exercise that does not involve something playful and ludicrous; something which their buoyant and laughter-loving minds can unrestrainedly enjoy; something which they cannot look upon as a toil or necessity, but which carries with it a reminiscence of their days of childhood, and which in part brings back the feelings that they then had. Such will skip or play at battledore and shuttlecock, or enter with heart and soul into a game at "catch me who can." Need it be said how important, and indeed needful, is an attention to this matter, in advising exercise to others, or in selecting a kind of exercise for ourselves.

The *age* of the individual renders discrimination and modification necessary. It would seldom be wise to recommend the same kind of exercise to the elderly father or mother of a family, that might with propriety be advised for his or her children or grand-children; the exercise must be more quiet, and at the same time more grave and dignified, other things being equal, as the individual is older. The muscles cannot, in advanced life, be exercised so much, or so long as they could at an earlier period; the organs cannot so well bear, as they could have done in former years, the sudden and large influx of blood that violent exercise necessarily causes. The walls of the blood-vessels are harder, while their power of contracting upon their contents is materially diminished; there is, therefore, greater risk of inducing congestions of blood, or even hæmorrhage, than there is in younger people: any kind of violent, or even very active exercise is highly improper and dangerous, under such circumstances. The boy or the girl may run, jump, leap, or use any violent exertion without much risk; the youth, trained to the habitual and free use of his muscles, can hardly suffer from any muscular exertion that he is capable of. In such, the blood-vessels yield to a sudden influx of blood; they contract vigorously upon it, and drive it onwards; and the sole effect is a general quickening

of the circulation, without local congestion in any organ or structure. This state of things commonly lasts for many years; but towards middle life the man is less fitted for this; he does it with more inconvenience, and his doing so is attended with more risk. He may be stronger than at any former period of his life; he may lift a greater weight with greater ease; he may be able to walk or ride further without fatigue, than he could ever have done previously; but this is not the question. He can endure fatigue better; his muscles are stronger and more firmly knit; but the several parts of his system have a less power of accommodation; they less readily adapt themselves to any sudden changes; a sudden and considerable rush of blood into any part is less easily made room for; and less quickly got rid of; and although such a man can take more exercise with less inconvenience, yet violent exercise is taken with more risk. As years pass on, and the man gets older, this state of things increases; the blood-vessels yield less and less, their contractile powers diminish more and more, and violent exercise is taken with greater and greater risk, until it becomes impossible, or, of necessity, dangerous.

The sex, too, is a matter that must be attended to, in estimating the kind and the degree of exercise. The feelings of civilised society have made a just distinction between the sports of girls and those of boys; but it is not with such distinctions that this work has to do. Girls and boys may be said to be on a par until the age of ten or eleven years; but there is, even before that time, a difference between them; a difference as to strength and power. The boy will bear more exercise, and usually will bear more violent exercise, than the girl, without inconvenience. After the age of puberty, this difference becomes greater and more manifest. In general, young women, particularly if in a station of life where little or no personal exertion has been necessary, should not, without much caution, be allowed to take long-continued or violent exercise. It is well to begin by making the girl walk gradually more and more every day, always keeping the degree to which this is carried *within* the powers of the individual; then to make her swing her arms to and fro, for a longer or shorter time: then by degrees to do this longer at a time, and more rapidly; and then, and not till then, to allow a more active and violent kind of exercise. The game called "The Graces," or "*Les Graces*," is a gentle introduction to the latter; and after it has been persevered in for some time, the skipping-rope may be used at separate intervals during the day. With boys, lads, and young men, less caution is in general necessary, less preparation is required; but among them there are some that are delicate, of lax fibres, and weakly constitutions, with whom such caution is imperatively required. For such, it is necessary, and perhaps for all it is well, to begin with a daily, systematic, and judicious degree of walking; adding to this, after a longer or shorter time, any simple exercise of the arms; and to this the use of dumb-bells, climbing up a rope by the hands or any other similar and active kind of muscular exertion.

ON HEALTH.

It is truly noble and unselfish to do all in our power to preserve our health, for, in fact, nothing tends more to relieve society of the burden of miseries not its own than as each individual's taking such care of his constitution as shall enable him to cope successfully with the duties and difficulties of the situation in which he is placed.

No man is so *thoroughly selfish* as he who, in the ardent pursuit of pleasure or of profit, heedlessly exposes his life to hazard or danger, regardless of the suffering which he may entail upon those who depend upon him for support. In the abstract, we all admit that the enjoyment of health is the first of earthly blessings, and that without it, all others may be lavished in vain; and yet it has been quaintly asked, "Who is he that values health at the rate it is worth? Not he that has it: he reckons it among the common ordinary enjoyments, and takes as little notice of it, or less regards it than his long-worn clothes; perhaps more careful of his garments, remembering their price; but thinks his health costs

him nothing, and coming to him at so easy a rate, values it accordingly, and has little regard to keep it, is never truly sensible of what he enjoyed, until he finds the want of it by sickness ; then health, above all things, is earnestly desired and wished for."

In proportion, however, as we consider the matter with that attention which its importance really deserves, we shall become anxious, rather to take care of health when we have it, than first to lose it, and then exert ourselves to recover it. Such was evidently the feeling which elicited the following remarks from the clear-sighted Channing.

"You that have health, and know not how to prize it, I will tell you what it is, that you may love it better, put a higher value upon it, and endeavour to preserve it with a more serious, stricter observance and tuition.

"Health is that which makes your meat and drink both savoury and pleasant, else Nature's injunction of eating and drinking were a hard task and slavish custom.

"Health is that which makes your bed easy, and your sleep refreshing ; that revives your strength with the rising sun, and makes you cheerful at the light of another day ; it is that which fills up the hollow and uneven places of your frame and makes your body plump and comely ; it is that which dresses you up in Nature's richest attire, and adorns your face with her choicest colours.

"It is that which makes exercise and walking abroad the enjoyment of your liberty.

"It is that which makes fertile and increaseth the natural endowments of your mind, and preserves them long from decay, makes your wit acute, and your memory retentive.

"It is that which supports the fragility of a corruptible body, and preserves the verdure, vigour and beauty of youth.

"It is that which makes the soul take delight in her mansion, sporting herself at the casements of your eyes.

"It is that which makes pleasure to be pleasure, and delights delightful, without which you can solace yourself in nothing of earthly felicities or enjoyments.

"But now take a view of yourself, when health has turned its back upon you and deserts your company ; see then how the scene is changed, how you are robbed, and spoiled of all your comforts and enjoyments.

"Sleep that was stretched out from evening to the fair bright day, is now broken into pieces and subdivided, not worth the accounting ; the night that before seemed short is now too long, and the downy bed presses hard against the bones.

"Exercise is now toiling, and walking abroad the carrying a burden.

"The eye that flashed as lightning is now like the opaque body of a thick cloud, that rolled from east to west ; swifter than a celestial orb, is now tired and weary with standing still ; that penetrated the centre of another microcosm, has lost its planetary influence, and is become obtuse and dull."

If such then be a true picture of the opposite conditions of health and disease, what stronger inducements can any one require to give him an interest in the "study and observance of nature's institutions ;" seeing that they are the only means by which the "beloved ends and wished-for enjoyments" can be attained, and that we may as likely keep or acquire riches by prodigality, as preserve health and obtain long life by intemperance, inordinate passions, a noxious air, and such like injurious customs, ways and and manner of living.

VARIETIES.

The man who has never tried the companionship of a little child has carelessly passed by one of the greatest pleasures of life, as one passes a rare flower without plucking it or knowing its value.

The Criterion.—There is one criterion which physicians seem to have overlooked, that, when their practice aggravates disease, or hastens death, they may be sure it is wrong, and yet they appear never to have considered with due attention, ascribing to the *disease* what they ought to attribute to the remedy.

True and False Taste.—True taste is an excellent economist. She confines her choice to few objects, and delights in producing great effects by small means ; while false taste is for ever sighing after the new and rare, and reminds us in her works of the scholar of Apelles, who, not being able to paint his Helen beautiful, determined to make her fine.—*Samuel Rogers.*

HABITS.—Like flakes of snow that fall unperceived upon the earth, the seemingly unimportant events of life succeed one another. As the snow gathers together, so are our habits formed: no single flake that is added to the pile produces a sensible change; no single action creates, however it may exhibit, a man's character; but as the tempest hurls the avalanche down the mountain and overwhelms the inhabitant and his habitation, so passion, acting upon the elements of mischief, which pernicious habits have brought together by imperceptible accumulation, may overthrow the edifice of truth and virtue.

NECESSITY OF FRESH AIR.—It is only as ventilation is made a subject of education, and the minds of men are generally awakened to the physical reasons bound up in it, that it can at all become general. If men could be taught to refer cadaverous faces, head-aches, loss of appetite, and the thousand other unhealthy effects springing from want of pure air to their true cause—if they would really see that air is absolutely more essential to our well-being than anything else in the world, we should have some hope of a general and speedy change.—*Engineer.*

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Will shortly be published,
MEDICAL PROGRESS,
DEDICATED BY KIND PERMISSION TO THOMAS S. DUNCOMBE, ESQ., M.P.

The contents of this forth-coming pamphlet were agreed to by a Committee of Gentlemen (Medical Botanists), nominated by Dr. COFFIN and the Author; also by the Committee of the Agents' Society in connection with Dr. COFFIN: the latter Committee advised its publication.

The price will be low, to ensure it a world-wide circulation.

In No. 255 of our Journal, an advertisement of Mr. Brockies appeared, announcing his being the only Accredited and Authorised Agent for East and West Hartlepool. Our Editor, not knowing that

CAPTAIN JOHN NAYLER,

of St. Hilda-street, Old Hartlepool, was Accepted Agent for West Hartlepool, allowed its insertion. Captain John Nayler not only was our Agent in 1850, but also is our Accredited Agent for West Hartlepool, who continues to dispense all the Herbs, Roots, Barks, Powders, &c., used in Dr. COFFIN'S Medico-Botanic System of Medicine, of whom also may be obtained all Dr. COFFIN'S Medico-Botanic Works.

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By one of Dr. COFFIN'S Agents, a respectable Youth (as an Apprentice) who is desirous of being prepared for the Botanic Practice.—For Terms, &c., apply to BENJAMIN SCOTT, 5, Market Street, Oxford.

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Eight years accredited Agent to Dr. COFFIN, for Ratcliff, Shadwell, Limehouse, Stepney, Poplar, and the surrounding districts, may be consulted daily (gratis), at 108, Ratcliff Highway; and of whom may be had all the Herbs, Roots, Barks, Powders, Pills, and other Medicines used in the practice.

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Mr. NADEN is not in the habit of *adulterating* the Remedies he sells, and, therefore, they cannot be sold *so cheap* as those that are.

G. CALDWELL,

Surgeon and Practitioner of Medical Botany, Proprietor of the Botanic Dispensary,
34, WORCESTER STREET.

Sole Agent for Dr. COFFIN in Birmingham, from whom all the Herbs, Roots, Barks, and preparations used in the Botanic Practice, can be had genuine.

Mr. CALDWELL may be consulted daily, from 10 to 12 in the morning; from 2 to 4, and from 6 to 8 in the evening (Sundays excepted).

NOTICES.

Dr. COFFIN may be consulted gratis, as usual, every Saturday evening, from four to eight o'clock, at the Botanic Establishment, No. 24, Union-street, East, Spitalfields. *Patients not admitted to the waiting-room after eight o'clock.*

Dr. COFFIN may also be consulted at his residence, 24, Montague Place, Russell-square, daily *(Sundays excepted)*, from one to two o clock (fee one guinea), on any day except Monday, on which day the fee will be five shillings only.

Advice gratis, every morning, from ten to one o'clock, at the establishment, No. 134, High Holborn, nine doors from New Oxford-street, nearly opposite the London and Westminster Bank, Bloomsbury Branch.

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All letters should be addressed, "To the Editor of the Botanical Journal, 134, High Holborn."

POST-OFFICE ORDERS and all communications for goods, &c. to be addressed to WILLIAM FORD, 134, High Holborn.

The real name and address of the writer of a letter must be given in confidence.

The Botanical Journal and Medical Reformer is published Fortnightly, at No. 134, High Holborn, London, where all orders must be addressed.

COFFIN'S
BOTANICAL JOURNAL
AND
MEDICAL REFORMER.

"Human experience, which is constantly contradicting theory, is the great test of truth."—Dr. Johnson.

No. 262—Vol. VIII. SATURDAY, MAY 29, 1858. Price 1d.

TO ALL OUR READERS AND FRIENDS.

Dr. Coffin's "Treatise on Blood-letting and Fever," may be obtained, gratis, on application to our agents in town or country, who have been plentifully supplied with this very valuable pamphlet for distribution.

We should also suggest to our agents the propriety of distributing them mostly among those parties who are not acquainted with Dr. Coffin's Medico-Botanical System, so that they may, in some measure, obtain a knowledge of some of its glorious principles, and mark their superiority above the commonly received opinions of the regular, diplomatised medical practitioners.

As a clear, scientific, yet untechnical exposition of the two great and important subjects treated of in the above pamphlet by Dr. Coffin, it has no parallel in the whole round of medical works; in fact, for truthfulness, simplicity and perspicuity it has no equal: it is truly invaluable, and ought to be read by every one throughout, not only Great Britain and Ireland, but translated into the language of every civilised country.

ENERGETIC PRACTICE.

In medical practice, the judicious practitioner will apportion his means and apply them to meet the exigency of each case respectively. The engineer adapts the power of his machinery to suit the size and burden of his boat. Reason, age of the patient, and the symptoms attending, should govern our measures in relation to the sick. The same quantity of medicine that will have a salutary effect, in the incipient stage of disease, or where there is but a small degree of disease existing, may be insufficient to produce any sensible or efficient operation when the excitability is far gone and the remainder rapidly declining. In all cases of an extreme and advancing exhaustion of the vital powers, it will not answer any valuable purpose to act the part of mere spectators and lookers-on—then is the time for active exertion. We have so many cases of the successful treatment of fever patients faithfully recorded, who, from a state of extreme relapse, have been revived and restored by Dr. Coffin's medico-botanic system, that all our powers of body and mind should be roused to vigorous exertion in behalf of those who are suffering under the distresses of that dangerous form of disease. The more hopeless the case, the more vigorous should be our efforts. We should not remit our efforts to save a drowning man, though he appears to be sinking for the last time, but to double our diligence to effect his deliverance from impending death. When the mineral practitioner, in desperate cases, puts down his calomel by spoonfuls, shall the botanic be remiss in giving larger and more frequent doses of his safe and salutary remedies, in cases of uncommon emergency, than he would in the more ordinary forms of disease? In pursuing the course of practice above adverted to, the following prerequisite qualifications in the administrator are important, if not indispensable:—

First. A correct understanding of the

great, original and discriminating principles that govern a genuine Coffinite course of medico-botanic practice.

Secondly. Confidence in the system as predicated on the immutable basis of undeviating truth.

Thirdly. Promptness of disposition actually to engage to carry into complete effect the remedial means appertaining to that system.

Fourthly. Decision. With Dr. COFFIN this is indispensable—a wavering, doubting, vacillating, mongrel practice, never was, nor ever will be, eminently successful. The most decided, unequivocal, undeviating adherence to the prescriptions and rules of the founder of the medico-botanic system, can alone secure success to the follower of Dr. COFFIN, and lay a foundation for a permanent fame, when the ephemeral breath of flattery, partial connivance, and empty compliments have been exerted in vain by our opponents.

Fifthly. Energy and perseverence. If the practitioner, qualified as above stated, should highly appreciate the knowledge he possesses, realise the value of human life, the powerful aid of Coffinite remedies, and his high responsibility, he should consider the fame acquired as a stimulus to further exertion, and never rest satisfied till he is fully convinced that he has done all that man can do.

True it is, that all men are mortal! The great decree has gone forth, "It is appointed unto all men once to die." The irrevocable mandate stands enrolled in the records of human destiny; but the Creator's beneficence in the dispensation of an all-pervading Providence, that

"Lives through all life, extends through all extent,
Spreads undivided operates unspent,"

has established a wise, benevolent and astonishing connection between means and ends, or causes and effects. By this divinely gracious provision, nature furnishes, through her vast dominions, food for the hungry, for the thirsty drink, and medicines to remove disease.

It is our lot to live in an age of discovery and improvement, not only in the mechanic arts and sciences in general, but in the science of medicine especially. The botanic practitioner of Dr. COFFIN'S system has every rational inducement to be found faithful at his post, and to discharge his duty, so that in his attentions to the sick he should persevere to the last ebbing of the tide of human life.

CORONER'S INQUEST.

AT a coroner's inquest recently held at Birmingham, on the body of a female child, a year and a half old, who had first taken Atkinson and Barker's Infant Preserver, and afterwards some cough sirup purchased at the shop of our agent, Mr. Caldwell, in Worcester-street, which contained a small quantity of that bugbear of the faculty, Lobelia Inflata, by which it was most sapiently *supposed* she met her death, which supposition was annihilated by the verdict of the jury. Trifling as the quantity of Lobelia taken was, yet it was thought too good an opportunity to let slip of trying to bring the practitioners of Dr. COFFIN'S Medico-Botanical System into disrepute, at least with the unreflective part of the community. Accordingly, Mr. Westwood, surgeon, of Coventry-road, Birmingham, states that the child died from inflammation of the lungs, with pleurisy, and that he considered a grain of Lobelia administered would be attended with bad effects, and, if not vomited, *might* (mark the uncertainty) cause serious injury. How easy it is to talk in this undecided manner, when even assertions are not always proofs! Mr. Westwood, from his statement, incontestably proves one thing, namely, that he is entirely ignorant of the effects of Lobelia Inflata as a curative agent; though, did he condescend to read our Journal, it would wonderfully enlighten him upon the subject.

Mr. Caldwell is an experienced man, and we insert his challenge, published in the same paper (viz.) "The Birmingham Weekly Express" of Saturday, the 8th of May, and we shall see whether Dr. Birt Davies, or even Mr. Westwood, has the hardihood to come forward and answer us. We sincerely wish they would, and even dare them to do so.

TO DR. BIRT DAVIES.

Sir,—I hereby challenge you to a discussion, either through the press, or from the platform, to prove the opinions hazarded at the inquest held by you on Saturday, the 1st inst., to inquire into

the cause of the death of Agnes Bowen, late of Small Heath.

1st. To prove that it is a part of the recognised law of Queen Victoria, that, should a person who is not learned and legally qualified in medicine, take upon himself the treatment of another, and should the party so treated happen to die, the unqualified practitioner exposes himself, by law, to the charge and consequences of manslaughter.

2nd. To prove that Lobelia Inflata is tobacco.

3rd. To prove that Lobelia Inflata is a poison.

In the meantime I beg to inform you and the public that I am prepared to show that the first is incorrect as to law, that the second is incorrect as a botanic fact, and that the third is incorrect as a medical and physiological fact, based upon the philosophy of experience.

I have the honour to remain, sir,

Yours, &c.,

GEO. CALDWELL, M.R.C.S.

34, *Worcester-street*,
May 6th, 1858.

CURE OF DROPSY.

To the Editor of the Botanical Journal.

SIR,—In March, 1856, I was suffering severely from dropsy and in great danger of losing my life. I was then attended by a faculty doctor. My stomach was greatly distended, so that I was obliged to have my clothes enlarged.

I then placed myself under *Mrs. Essex, of* 21, *Emily Place, Upper North-street, Poplar*, who practises Dr. COFFIN'S system of botanic medicine. In a few weeks I was restored to perfect health, and able to go harvesting for the season, which is no light work. (People talk a good deal of Lobelia being a poison: if such is the case, I should think I have taken sufficient to poison a whole parish, having taken a Lobelia emetic daily for a fortnight, and my medicine containing the same herb.) I have enjoyed excellent health since, now nearly two years, which I consider sufficient proof of the cure being perfect. I take this opportunity to make known the benefit I have received from the botanic system, to induce others to adopt the same, as I feel confident it is the right one, and shall always follow it myself, and strongly recommend it to others.

Feeling thankful to Mrs. Essex for having restored me to health, and Dr. COFFIN for having introduced Medical Botany into England,

I remain, sir, yours respectfully,

CHARLES HOURS.

21, *North-street, Poplar*.

I should feel great pleasure in answering any inquiries in reference to the above. C. H.

OBSERVATIONS UPON THE ABOVE CASE.

What say ye to this, ye medical baronets, physicians, diplomatised practitioners, yea, the whole host of allopaths and legalised professors of medical science? Here is a female in the common walks of life, in common parlance, uneducated, having no more conception of the meaning of your learned terms hydrops, epistaxis, dyspepsia, locales, exanthemata, &c., &c., than a Laplander; to her, dropsy is dropsy, nose-bleeding is nose-bleeding; yet she, even she, having nothing but that which is proved to be worth more than all the learned lumber of ages (viz.), common sense and Dr. COFFIN'S "Botanical Guide to Health," joined to her empiricism or experience (take which term you please), has made a permanent cure of a very severe dropsical case, and that, as usual with Coffinite practitioners, after one of the (as our correspondent styles him) faculty doctors has failed, one who has attended the lecture and dissecting room, passed his examination, received his diploma, and yet, though backed with all these, failed to cure.

This case, among the many, fully bears out the decided conviction, felt and expressed by men who have thought much upon and rationally considered the subject of medicine, that they are compelled to acknowledge that they have no confidence in the allopathic treatment, or especially in the employment of physicians; for in ninety-nine cases out of a hundred they are useless, their visits entailing the payment of a heavy fee without the least benefit being derived, and in many cases from the very cursory examination of a patient, giving a wrong prescription on account of mistaking the disease.

Let us inquire into the usual practice of an M.D. when called in. He sees the patient and feels his pulse, *hums*, looks at his tongue, *has*, then writes a prescription, takes the fee and goes, probably thinking that the sooner he finishes the visit, the more will the patient and his friends be convinced of his profound learning and medical scientific attainments.

Alas! how seldom do we hear of a patient's recovery, after a physician has been called in! not many at any rate have come under our notice.

Now, how different is the practice of the followers of Dr. COFFIN'S medico-botanical system! They see the patient, sympathise with him patiently, make every inquiry concerning his illness, thus master the case, and so far as regards medicine, give him, *not* the great allopathic sheet anchor mercury, not their valued iodine, their arsenic, their hyosciamus, &c., &c., all, all poisons and highly depletory, but the inestimable herbal medicines whose action, whether tonic, astringent, purgative, diuretic or mucilaginous, they know by experience to be proper for the individual case, and whose qualities they have tested in numberless cases with the most efficient results. The consequence is, that by giving the patient those remedies which act in accordance and harmony with Nature, they help her to expel the disease, to nourish and replenish the system, and the result is, the patient is cured and returns to his avocations rejoicing.

VENTILATION.

THE importance of ventilation, much as it has been urged on public attention, is not yet sufficiently estimated. Are not bed-rooms still built low and small? Are not beds still surrounded with closely drawn curtains? Are not bed-rooms still crammed with furniture, and their floors covered with carpeting—at times even under the beds, where a carpet is not, cannot be wanted? Do not people sleep with the door and windows of the bed-room closed, with a light, and not unoften that light gas, burning in their bed-rooms? Can it be contended that they either understand ventilation, or appreciate its value?

The atmospheric air, composed principally of two elements, oxygen and nitrogen, is changed by respiration; and consisting, before inspiration, of twenty-one parts of oxygen to seventy-nine parts of nitrogen, or twenty-one per cent. of oxygen, it contains after expiration, probably at the lowest computation, three and a half per cent. of carbonic acid, or, on an average, twenty-seven and a half cubic inches of carbonic acid are evolved from the lungs every minute, or about forty thousand cubic inches in twenty-four hours, which weigh nearly three pounds, and contain about eleven ounces of carbon.

Now the rapidity with which this vitiation takes place, may be conceived by knowing the fact, that at each respiration sixteen cubic inches of air are, on an average, deteriorated, and that about twenty such respirations are taken in a minute; therefore three hundred and twenty cubic inches of air are each minute poisoned by every individual, and rendered unfit for the support of life. The consequences which must follow, even on a simply chemical view of the matter, if a man is confined eight hours in a shut-up bed-room, are obvious enough. But this is not all: with the expired air a large quantity of watery vapour is exhaled from the lungs—a fact which demonstrates itself by the vapour being condensed in cold weather, and in winter sometimes frozen on the bed-room windows—a fact which shows itself in the dampness of the clothes, particularly woollen clothes, which have lain all night in a closely shut-up bed-room. Nor is this all: the skin is actively at work evolving its secretions; among the rest, a highly volatile and, in some persons, most offensively smelling substance, which, mixing with the air, taint it more and more—render it more and more impure—more and more unfit for respiration.

The effect of a burning candle or lamp in increasing these evils, is precisely that which a second person in the room would cause, seeing that, during its combustion, it takes the oxygen from the air, and replaces it by carbonic acid.

The effect of a fire, if it is a very small one and the room large, is rather favourable to ventilation than otherwise.

But this is a nice question, one with difficulty adjusted, and one which, unless the bed-room is particularly large, should not be tried. For if the room is heated, the air is rarefied, is expanded, occupies a larger space in proportion to its weight, and therefore at each respiration less air is really breathed; the blood is consequently not so freely and completely aërated. But there is likewise another effect. If the air is heated the body is heated, the vessels of the skin excited, and the result is either an excessive secretion of its fluids, and consequent and unnecessary and injurious exhaustion, or, failing this, a hot, and dry, and feverish skin. But even this is not all. Blood, when heated, occupies more bulk, more space, and the consequence is fulness of the vessels, undue pressure on the brain and nerves, and therefore torpifying, lethargic, unrefreshing sleep, or otherwise a restless excitability of system. Both these effects must have often been felt by the man who has indulged himself with a heated bed-room. These effects must have been frequently felt by most men in a hot sitting-room. The first effect of the heat is, I think, usually some sense of oppression in the breathing; this is succeeded by a feeling of drowsiness and torpor, and if this is not relieved, it is followed either by a deep and heavy sleep, or by restlessness and nervous irritability; and, if this state of things is allowed to continue, it is succeeded by languor and exhaustion; the state of the system, in fact, in which cold is most sensibly felt, or in which it is most apt to be followed by local determinations of blood, by inflammations, &c.

The bed-room ought not then to be heated, but, on the contrary, to be kept as cool as is consistent with the feelings and the health, and means ought always to be taken to secure a constant change of air in it. For these purposes, either the door ought to be left partially open, or the windows opened a little at the top. No fire ought to be allowed, unless under very particular circumstances, if the room is not unusually large, and even then the fire ought to be a small one. The curtains of the bed ought to be of as light a texture, and they ought to be as little drawn, as possible; the floor only in part carpeted; and there ought to be only necessary chairs, tables, &c. Furniture to a remarkable degree prevents free ventilation, and all woollens, as carpets, absorb the moisture, whether from the breath or in damp weather, and so render the air less pure and more relaxing. A light ought not to be allowed in a bed-room, if it can be avoided; if it is necessary, let it be put in the fire-place. Gas ought never to be burned in a bed-room. Of the importance and value of gas it is not for me to speak here. I am not about to decry it as a street-light, or as a shop or warehouse or passage light; but as a mode of lighting dwelling-houses, and especially bed-rooms, I do not think that it can be sufficiently decried. In itself a poison, carburetted hydrogen, or coal-gas, cannot be burned in any hitherto contrived way without allowing some portion to escape unconsumed, and this diffusing itself, is, it is true, diluted, but still it is noxious; and I have repeatedly known it to produce, indeed, I have repeatedly experienced, its bad effects. Even in the theatre and the ball-room, many persons must have felt the headache, and giddiness, and sense of faintness, which this unconsumed gas produces. The effect which breathing it, night after night, during sleep, produces, is more insidious, but is, at all events, not less considerable. Until gas is rendered still purer than it yet is, and until a burner can be found which will enable every particle to be consumed, it should be banished from the bed-room, the sitting-room, and, unless there is free ventilation, even from the public room or the theatre.

A bed-room ought not to be on the ground-floor, but rather on the first or the second. Yet it is well that it should not be in the upper story of the house, at least if the house is much exposed to the sun's rays, and the upper rooms are heated by them. For the same reason, it is generally well that the bed-room should not be on the sunny side of the house.

These rules may, to some, seem simple, to others even trifling. I might easily, were it not foreign to my present purpose, illustrate their importance by cases and facts. Let them be tried. It will be time enough to think lightly of them, when they are found to be useless.

Many persons are in the habit of indulging themselves by having their bed warmed with heated coals every night; and they would, probably, if the practice were reproved as wrong, say, that if it were not done, they would be chilled by the coldness of the bed, and, not recovering their heat, would pass sleepless nights.

But instead of being satisfied with this answer, they should ask themselves, "Why is it that I require my bed to be warmed, while most people contrive to do without any such indulgence?" A heated bed is injurious. If heated with coals, the air of the room is deteriorated by their combustion, if not by their smoke; and, however heated, it enervates, it weakens, it renders the skin susceptible to modifications of temperature, and therefore the system liable to suffer from the ordinary vicissitudes of our climate. Why is it wanted? Is the man in a debilitated state? If so, I would say, indulge him until he has recovered his strength. Is he labouring under some severe disease? Is it a sort of placebo? Does it sooth and tranquillise him? and not make him worse? Well, then, under such circumstances, continue the practice. But is the man in moderate health? Then, depend upon it, the chances are, either that he keeps himself in a heated atmosphere, dreading lest the winds of heaven should visit him too roughly, or his stomach is weak, or disordered, or some of the organs concerned in the digestion of his food have either too much to do, or are more or less disturbed in their functions. Let such a man try the effect of a regulated and moderate diet, of temperance, of daily exercise in the open air, and, till these have exerted their influence, let him keep his feet warm by a bottle filled with hot water, or any similar contrivance, and till then, or even afterwards, let him substitute calico for linen sheets.

Upon the value of ventilation in fever and other diseases, I must not enter in this work.

I have said enough to show the folly, and inutility, and injurious effects of a heated atmosphere in the bed-room. I would, with some modifications, extend these remarks to the sitting-room. The cooler it is, consistently with health, the better; and, let me say, that if the individual takes enough exercise, if he uses muscles enough, and uses them sufficiently, and if he is as much out of doors as he ought to be, he will not, even in the depth of winter, require much fire, and will moreover be contented to have the door of the room open, or the windows partially so at the top. This may seem an outrageous sort of doctrine—one subversive of fire-side comfort; but let me remind the reader that there is no comfort without health, and it is for and in the behalf of health, that I am writing. But what is better known than the stupifying effects of a hot room on a social or family party? What is better known to the man who studies much, than the impossibility of applying his mind to serious business in a hot, or even warm, room, from the lethargy which it always produces?

But further—and it is perhaps even more important—this undue heat increases the chance of suffering from exposure to cold air, not only by heating the body and making the contrast between them greater, but by producing exhaustion, and in this way it renders the risk infinitely greater. It is in this way that the heated ball-room or theatre does so much harm, lays the train for so many afflicting cases of premature death. It is not only by the contrast between the temperature within and that without, but by the exhausted condition into which the heat throws those who have been exposed to its influence; the condition in which the circulation of the blood in the skin, being languid, is most easily checked, and the blood, thrown on some internal, and probably vital organ, sows the seeds of consumption, &c. &c.

Enough has been said of the temperature of rooms; it need only be added, that fires certainly subserve, more or less, the purpose of ventilators, by heating the air and causing it to go up the chimney, that air being replaced by cold air, which enters at the door or the windows. And therefore, if rooms are heated by steam-pipes, or in any similar way, it is necessary to adopt more active and unusual means to secure ventilation.

Virtue is the surest road to longevity, but vice meets with an early doom.

MEDICAL PROGRESS.

Mr. Stephens's pamphlet, entitled "A Few Remarks on Medical Progress," as advertised in our Journal, is now ready for sale. The wholesale price is twelve shillings for the first 104, or eight dozen, of thirteen to the dozen, and six shillings for every 104 afterwards. The fifth thousand is now in the press, and 3,280 are already sold of the former impressions, as follows:

Mr. W. E. Ford, Derby	520
Mr. G. Hall, Scarborough	520
Dr. Stowell, Brighton	312
Mr. J. Johnstone, Aberdeen	104
Dr. Hodgkiss, Walsall	104
Dr. Hardwicke, Bury St. Edmonds	104
Mr. G. Heys, Glossop	104
Mr. I. Lloyd, Stockport	104
Mr. I. Slater, Cleckheaton	104
Captain J. Naylor, W. Hartlepool	104
Dr. Thomas, Newcastle	156
Mr. W. Hodgson, York	104
Mr. J. Stephens, London	1,040
	3,380

This pamphlet wants only to be read to be appreciated. Thomas Duncombe, Esq., M.P., writes: "I am glad to learn it meets (as it deserves to do) with public approval."

An eminent clergyman in the east of London states: "I have read your well-written pamphlet—*every line is true!*"

We have read the above with great satisfaction, and the sale ought to be commensurable with its merits; then, instead of thousands alone, hundreds of thousands ought to meet with ready sale: in short, it ought to be purchased by and read in every family throughout the length and breadth of the land.

A specimen number of the pamphlet will be sent to any address on the receipt of two postage stamps.

CONSTITUTIONAL CAUSES OF DISEASE.

Apart from all personal care and watchfulness, there may be causes of disease inherent in the system. An unhealthy constitution is often inherited from parents. That certain infirmities and diseases are transmitted from generation to generation is familiarly known. Although there may not be actual manifestation of inherited sickness, there may be the constitutional tendency to certain complaints, expressed in medical language by the term diathesis. The most important condition of this class is the scrofulous or strumous diathesis. Many persons live to a late age, not merely with latent scrofula, but afflicted grievously by some of the consequences of this taint of the system. Such is the case with deformed persons, where the bones have been affected in early life. There are many other results of the strumous diathesis which do not necessarily shorten life, and with the existence of which a person may enjoy tolerable health. It is only when important organs are affected, such as the lungs, or the glands of the intestines, that dangerous consequences are to be dreaded. At present we are speaking of the constitutional taint, not of actual diseases. It is now well ascertained by physiologists that scrofula consists in the secretion of a substance different from the healthy albuminous matter which is one of the depositions from the blood. There is mystery as to the causes of this altered secretion, as there is about every process of animal chemistry; but it is the part of sound science to study the facts that can be observed. We find, then, in a vast number of persons a disposition to the secretion of an unhealthy substance, especially in the glandular parts of the body. Hence the swelled glands of the mesentery in children, resulting in the frequent and fatal disease of tabes, or wasting. We find, also, that where this constitutional taint exists, complaints that would be trifling in a healthy person, assume peculiar symptoms, and give rise to numerous ailments. The diseases to which children are subject are especially liable to be aggravated by a scrofulous constitution. If the dangers of early life are escaped, there is always risk of the most fatal of all the diseases of this country, pulmonary consumption. Indeed one of the common names of this scourge is tubercular phthisis, or wasting connected with tubercles of the lungs. These tubercles are depositions of scrofulous matter, and when cold is caught, and inflammation excited in the lungs, the tubercles suppurate and ulcerate, causing

the expectoration of purulent discharge, spitting of blood from the destruction of small blood-vessels, hectic fever, and all the distressing symptoms of decline. Equally distressing and fatal are the consequences of scrofulous affections of the mesenteric glands in younger patients. The glands through which the nourishment of the system has to pass, become diseased; the belly swells, while the rest of the body wastes, and hectic fever and disordered bowels hasten dissolution. We need not dwell upon the many other maladies of the spine, the joints, the eyes, the skin, and all parts of the body, produced or aggravated by scrofula. The important question is, how is this constitutional taint caused? That it is transmitted from parents has been already stated. But there is no doubt that it is also produced in children born of healthy parents. For example, when a family migrates from the country to London, the children born after the change often have strumous constitutions. Scrofula is essentially a disease of debility or deficient vital power. Poor diet, unwholesome air, insufficient clothing, want of cleanliness and of sunlight, with other conditions to which the children of the poor in large towns are exposed, are the predisposing causes to a strumous state of the system. The debilitating influences of intemperance, and of excitement, whether of business or pleasure, in parents in higher grades of life, have also the effect of communicating to their offspring this form of bad constitution. In order to prevent or to alleviate the scrofulous taint, it is the duty of parents to avoid whatever overstimulates or debilitates the system, and children in whom any predisposition to the complaint appears must be generously nourished, and every means taken to strengthen the constitution, with more than usual caution in guarding against other causes of disease.

NEW ENGRAVINGS.

We have just time this number to announce, that we have, in course of preparation, a new series of our medical herbs, upon a much larger and more elaborate scale, at a very considerable increase of expense, most carefully drawn from nature by a first-rate botanical draughtsman, and engraved on wood with the utmost care. This will prove our anxiety to make our Journal worthy a very extensive sale, and we do hope that our friends and readers will do all in their power to facilitate its extension; for we assure them that the Journal is far from being remunerative. Yet such is our devotion to the cause, that this new expenditure is cheerfully met by us, trusting that our exertions will be cordially seconded, so that, at no very distant period, we may, by the kind and strenuous exertions of our friends, in energetically bestirring themselves to promote its sale, be placed in a position to suffer no loss by our devotedness to their information, gratification and satisfaction.

ON COMPARATIVE ANATOMY.

There is no branch of knowledge more interesting to mankind in general, including all ages and descriptions, than the history of living beings, or, as we commonly call it, the natural history of animals, of which comparative anatomy is the very life and essence. This pleasing subject occupies us at the first dawn of reason, amusing our earliest infancy, and supplies a fund of solid instruction and rational entertainment to our riper years and more developed faculties. In its boundless extent and variety are included matters within the comprehension of the slenderest and least-cultivated understanding; and others, to which the strongest minds and most enlarged science are not more than adequate.

The resemblance which animals bear to ourselves in frame and actions, naturally leads us to ascribe to them our own feelings, to fancy they are susceptible of our pleasures and pains, actuated by our desires and aversions, and impelled by the same motives or springs of action; and thus excites in the mind, even of the youngest and most unlearned, a sympathetic interest and a degree of curiosity which are never felt in examining inorganic nature or in contemplating its phenomena. None of the exhibitions in a fair are more crowded by young and old, the ignorant and the learned, than the collections of foreign and curious animals; no books are more generally read, than descriptions of the form, ac-

tions, habits, instincts and character of living creatures. The knowledge of living nature, which is well worthy of cultivation as a subject of mere amusement, at once innocent and rational, and therefore suited to all ages, presents other and higher claims to our attention. The multiplied relations which animals bear to our own species, supplying our most urgent wants, aiding our greatest undertakings, and giving full effect to our faculties and exertions; and the important part they fill in the creation, animating and enlivening every scene, and often changing the very face of nature, can hardly escape the notice of the most unreflecting; and can only be neglected by those who are contented to remain ignorant of the most striking phenomena around them. I do not speak at present of the important bearings which zoology has on the science of human organisation and life, and consequently on the art of healing, but consider it merely as a branch of general knowledge.

What a multitude of quadrupeds, birds and fishes afford occupation, either directly or indirectly, to the many savage tribes, who live almost entirely on the produce of the chase or the fishery, or to the sportsman, who seeks in these pursuits merely a healthful recreation! What an interest is felt in observing and investigating the habits of these various beings; in comparing and contrasting their diversified endowments; in watching the force and activity of some, the address, the stratagems, and the cunning of others, the wonderful instincts of all, and the curious relation between their habits and the respective situations they occupy! What a number of the inhabitants of the earth, air, and waters, are sacrificed to furnish us with food! while from the same source we derive a still larger portion of our clothing. The number of living creatures, whether beasts, birds and fishes, or even reptiles, worms, and insects, consumed for food in the various regions of the earth, is prodigious. None, even the most disgusting, as locusts, beetles, maggots, spiders, entirely escape. When we add to these what are destroyed to supply us with clothing, particularly with wool, silk, leather, fur, feathers, with the means of procuring light, as oil, wax, spermaceti, tallow, with various articles of medicine, as hartshorn, musk, castor, Spanish flies, with the materials of numerous useful and elegant arts, as cochineal, parchment, glue, isinglass, catgut, bone, ivory, mother-of-pearl, hair, bristles, whalebone, horn, and what are killed for our sport and amusement, or through abuse, wantonness, and cruelty, the catalogue will be of immense length, and will amply justify Dr. Spurzheim in having marked out such a considerable tract, in his map of the human brain, for the abode of destructiveness, and its near neighbour and close ally combativeness; to say nothing of that circumstance which is almost peculiar to our species, viz., their killing each other* —a practice so essentially characteristic of human nature, that it prevails in every region and climate, in every variety of man, and in every state of society, from the rudest tribe of savages to the most highly civilised empire, except indeed among the Quakers and one or two equally inconsiderable sects—all honour and praise to them for it! There are instances in which whole tribes of human beings depend, for the supply of all their wants, on one or two species of animals. The Greenlander and Esquimaux of Labrador, placed in a region of almost constant snow and ice, where intense cold renders the soil incapable of producing any articles of human sustenance, are fed, clothed and lodged from the seal. They pursue, indeed, the reindeer, and other land animals and birds; but seal-hunting is their grand occupation. The flesh and blood of the seal are their food; the blubber, or subcutaneous stratum of fat, affords them the means of procuring light and heat; the bones and teeth are converted into weapons, instruments, and various ornaments; and the skin not only supplies them with clothing, but with the coverings of their huts and canoes. The sto-

* Besides war—"the game," our poet calls it, "which were their subjects wise, monarchs should not play at," but which, *unluckily*, subjects enjoy almost as much as kings—I may refer to the human sacrifices which either have been or are still practised in most parts of the world; and to cannibalism, which, having been much doubted and questioned, is now clearly proved to be still prevalent in many places.

mach, intestines and bladder, when dried, are turned to many and various uses: in their nearly transparent, dry state, they supply the place of glass in the windows; the bladder they make into floats for their harpoons, arrows, nets, &c.; when sewed together they make under garments, curtains, &c., and are employed in place of linen on many occasions. Thus every part of the animal is converted, by a kind of domestic anatomy, to useful purposes; even to the tendons, which, when split and dried, form excellent threads. To the pursuit of the seal, the canoes, instruments, weapons, clothing, education, and whole manner of life of the Greenlanders, are adapted. As a plentiful supply of these animals enables them to dispense with everything else, and as, without these, they could procure neither dwellings, clothes nor food, it naturally follows that the great aim of education is to make the boys expert seal-hunters; and that dexterity in this pursuit is the greatest praise that can be bestowed on the man. The Laplanders and the Tungooses of North-eastern Asia are equally indebted to the reindeer, the tschutske; the North-west Americans, the Aleutians, and other neighbouring islanders, to the whale and walrus. The latter, as well as the Greenlanders, seem to have anticipated modern anatomists in accurately distinguishing the several anatomical textures, and ascertaining what BICHAT calls their "propriétés de tissue," or properties resulting from organisation, in order to convert the various parts to the manifold purposes of their economical anatomy: they surprise us by manufacturing thread from the carcass of the great leviathan (the whale), splitting the fibres of its cutaneous muscle into lengths of a hundred feet or more; and preparing from it a double-threaded twine, which, in the united requisites of fineness and strength, will bear comparison with any productions of European industry.

The flocks and herds which are reared for food, and the various domesticated animals employed in agriculture, in carrying burdens, for draught, and in numberless other ways, are so useful and important, that their structure, economy and diseases have been carefully studied, and these subjects have been found sufficient to occupy a particular class of persons. Indeed, without the dog, the horse, the sheep, the cow, the goat, the reindeer, the camel and the llama, many extensive regions of the globe would be uninhabitable, and others, now covered with a numerous population, would be reduced almost to the condition of deserts.

(To be continued.)

ON THE EXERCISE OF THE VOICE.

THERE is, one kind of exercise that has not often been mentioned, nor even been thought of as *an exercise;* that of the lungs and muscles of the chest and wind-pipe in speaking, singing, reading aloud, &c. It has, however, been mentioned often enough to prevent any claims to originality of ideas upon it, however new it may be to the reader to find it looked upon as an element of health.

One of the greatest, if not the greatest thing to be attended to in every kind of exercise, is to proportion it to the strength and the constitution of individuals. So proportioned, the exercise of the voice is no mean auxiliary to exercise of the other muscles of the body, and is a remarkable means of giving additional strength to the respiratory organs, and of diminishing the risk of pulmonary diseases. So important and so great is its influence, that it would be well if it were made a prominent feature in the physical education of youth. It would be well were children encouraged in their vocal ebullitions of boisterous merriment, instead of being, as they often are, awed, or chidden, or even beaten into silence. It would also be well if they were early exercised in the great art of reading aloud, not merely to the extent at present practised in our schools, but were it made to form a part of their evening employment: the subjects chosen might be light and amusing, and so the idea of its being a hardship, or a task, be completely obviated. Were they in their days of childhood allowed to laugh, shout, &c., at proper times, without restraint or correction; were they in their days of girlhood and boyhood made to read aloud for half an hour, more or less, according to their strength, every

morning and evening; the delicate tissue of their lungs would acquire a firmness, the respiration a freedom, and the voice a capacity, and its intonations a variety, which would be at once a great means of averting the pulmonary complaints, that are so fearfully rife from the age of puberty upwards, and would be a direct means of giving to our youth that most difficult of all acquirements, a mastery over the voice, its tones, and its intensity. In the later years of girlhood or boyhood, say from twelve years old upwards, prepared for it by such previous exercise, the lungs might with propriety be still further used in singing, &c.; while without such preparation, this severer exercise of the respiratory organs is but too often followed by shortness of breathing, by other marks of pulmonary derangement, and, too frequently, these are only the harbingers of genuine and incurable consumption. The fact is, that, accustomed to speak low as children, but little used to reading aloud as girls and boys, the lungs are then often for the first time actively exercised, and the result is irritation and consequent inflammation of their substance or their membranes, the development of *latent tubercles*, and the fearful sequelæ, consumption and death.

THE RURAL STROLL.

Among the many sources of pure gratification and delight that are everywhere and upon every hand surrounding us, there are but few that have greater claims to our notice than a stroll in the fields, the woods, the dales, the hills, and the vales. Now comes the time for the toiling artizan, the sedentary man, the man of business, to unbend their minds from the onerous duties of their several stations and join with the lover of nature, the botanist, and the medical herbalist, in devoting their attention during an invigorating stroll to the beauties of the wild flowers in each of the above localities; the multiplicity of beautiful objects must strike the mind with delight, must make them feel better creatures, and involuntarily lift their contemplations from the created to the Creator.

Well has the poet Lyons written—

The welcome flowers are blossoming,
In joyous troops revealed,
They lift their dewy buds and bells
In garden, mead and field.
They lurk in every sunless path
Where forest children tread;
They dot like stars the sacred turf
Which lies above the dead.

They sport with every playful wind
That stirs the blooming trees,
And laugh on every fragrant bush
All full of toiling bees;
From the green marge of lake and stream,
Fresh vale and mountain sod,
They look in gentle glory forth
The pure, sweet flowers of God.

Doubtless the contrast between the previous months and this, does increase the charms of the season, but there is a freshness in everything which we meet with at no other time. Opening buds and bursting flowers are everywhere, and we, the votaries of botanical science and enjoyment, must be up and doing; for bells and flowerets, not only of a "thousand hues," but of a thousand forms, await us.

(To be continued.)

VARIETIES.

The great law of mutual benevolence is oftener violated by envy than by interest; and most of the misery which the defamation of blameless actions, or the obstruction of honest endeavours, brings upon the world, is inflicted by men that propose no advantage to themselves but the satisfaction of poisoning the banquet which they cannot taste, and blasting the harvest which they have no right to reap.—*Dr. S. Johnson.*

Out-door Culture.—It is in the country, and, as it seems to me, there only, that the minds of the children may be kept in a state of healthy activity, without a too frequent recurrence to books; and it is there best, if not exclusively, that a wide and copious acquaintance with the kingdoms of nature may be made by the means of ocular and conversational instruction, such as shall convey a fund of various information, apart from task-work and lesson-learning. A full half, or more, of all that ought to be learned in early life may be learned out of doors by country-bred children; and how incalculable is the advantage of such a method in respect both of the mind and of the body!—*Isaac Taylor.*

Varieties in Food.—The hunter on the Pampas subsists on buffalo beef, with scarcely a particle of vegetable food to vary his diet. The Hindoo is content with rice and rancid butter, and cannot be induced to eat flesh. The Greenlander gorges himself with whale oil and animal fats of any kind he can secure; the moderate Arab has his bag of dates, his lotos-bread and dhourra. On the coast of Malabar we find men regarding with religious horror every species of

animal food; while the native of New Holland has not a single edible fruit larger than a cherry on the whole surface of that vast island. The Englishman considers himself ignominiously treated by fortune if he cannot get his beef or bacon; the peasant of the Appenines is cheerful with his meal of chestnuts. Besides varieties in the staple articles of food, there are the infinite varieties of fancy. Our Chinese enemies make delicacies of rats and of birds' nests; our French allies, of frogs. The ancients who carried epicureanism to lengths never dreamed of by Guildhall, thought the hedgehog a tidbit, and had a word to say in favour of the donkey, which they placed on an equality with the ox; dogs they considered equal to chickens, and even cats were not to be despised. The pork, which we eat with great confidence, they considered, and not untruly, the least digestible of animal meats, fit only for artisans and athletes. They ate snails with the gusto we acknowledge in oysters.—*Blackwood's Magazine.*

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BOTANICAL JOURNAL

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"Human experience, which is constantly contradicting theory, is the great test of truth."—Dr. Johnson.

No. 263—Vol. VIII. SATURDAY, JUNE 12, 1858. Price 1d.

FACTS FOR FAMILIES.

From the "Destructive Art of Healing."

It is a "fact"—and no fact can be better attested—that, however greatly particular doctors might at one time differ from each other in certain details of every-day treatment, the faculty, till very recently, were almost to a man unanimous as to the efficiency of many measures which numbers of themselves *now* admit to have been a mere string of the most egregious errors. Right or wrong, at the epoch alluded to, not only were the measures, *now* so very generally condemned, the universal practice, but for upwards of twenty centuries one and all of them had actually been received as the approved ground-work of the healing art. From time immemorial, for example—in the *outset* of diseases at least—it had been the established practice of medical men to reduce the vital force of the patient's system by every means in their power; and more especially had it been their custom thus to reduce it by abstracting and otherwise diminishing the *reparative material* of the entire organic economy, by a variety of processes, all more or less repulsive and painful. Having first, in almost every case, duly stopped *income*—the food and drink—and wasted *capital*—the blood and the elements of the blood—no man was considered a "competent physician" who did not further very carefully multiply by a general rule of three the normal *expenditure* of the healthy body.

Such at least was the "antiphlogistic practice"—a practice by which the medical people, time out of mind, were in the universal habit of reducing their unfortunate patients—whatever their previous strength or stamina—to a common standard of helplessness and debility. Its object, according to the schools, was to prevent or cure inflammation, most diseases being supposed to partake of an "inflammatory," "phlogistic" or fiery character. But of all those so-called antiphlogistic measures, the highest in rank with the most eminent doctors was blood-letting. "In all cases of inflammation," says a great living professor—Professor Alison, of Edinburgh—"in all cases of inflammation, the only antiphlogistic remedy on which absolute reliance can be placed is *blood-letting;* and there is no other remedy for *any other kind* of diseased action which can be put in competition with *this* in *efficacy* and *importance.*"

In this high appreciation of blood-letting, as a universal remedy, Dr. Alison merely echoed the prevailing opinion of the profession at large. But, at the period here referred to, blood-letting was only one of the "antiphlogistic" measures on which reliance was placed as a remedial means; for, even so late as 1836, Mühry, a German physician, who came to England expressly to see British practice, thus writes: "Mercury, purging and blood-letting are the three leading therapeutic means in England."—"The English practitioners hold the human system to be so constituted that it can bear a *considerable loss* of blood."—"Even in chronic inflammation bleeding is much depended on."—*Mühry's State of Medicine in France, England, and Germany, in* 1836. In

addition to these depressing measures, medical men then very generally adopted various forms of "counter-irritation," comprehending blisters, setons and issues. Whatever the nature, or wherever the real or supposed "seat," of the patient's complaint—the head, the chest, the back, the stomach, the joints—these were the common applications—followed up in certain cases by horrible ointments of savine, tartarised antimony, and the like.

For upwards of twenty-three centuries to starve, bleed, purge, and torture, had been the all but exclusive business of the man of medicine. From the days of Hippocrates till within the last few years, this was the undoubted practice in almost all diseases. Mathematically considered, the whole thing might seem absurd; and when rigorously tested by *statistics*—as has been since done in particular diseases—the absolute negation of all practice could not show such a fearful fatality of result! But at the period in question there were no statistics; dead men then, at least, proverbially told no tales; and as those who were fortunate enough to *escape* this terrible medical ordeal were invariably reminded by the doctor how thankful they ought to be for their *cure*, the majority of patients seldom expressed themselves ungrateful for anything that had been done for them in the course of their illness. In truth, what from the gloom of the sick-room, and what from the obscurity that enveloped the science, no question was ever asked by the public at large about medical matters. The possession of a diploma or degree from a school or university of reputation was the only requisite for practice. The *practice* itself, no matter how destructive, signified little so long as it was the "established practice."

Such and so complete and implicit was the confidence with which the great mass of the public regarded the profession, very few people had the boldness to doubt or dispute the general excellence of an art which their physicians with truth assured them had been the offspring of the accumulated medical experience of ages. Here and there, nevertheless, among thinking and reflecting men—philosophers, poets, and satirists—an opinion was gradually growing up unfavourable to the professors of medicine, from Shakspeare, whose advice was to "throw physic to the dogs," to Byron, who himself fell a victim to what he too truly termed the "Destructive Art of Healing." But till the year 1836, when, as Mühry is careful to relate, the sanguinary practice, in England at least, still continued in the ascendant, it never seemed to have occurred, even to physicians themselves, that there could be anything materially erroneous in their general method of treating diseases. The year 1836, however, was destined to be the commencement of a most momentous epoch in the history of medicine. In the autumn of that year the writer first startled the profession by the announcement of his work, "The Fallacy of Physic, *as taught in the Schools; with New and Important Principles of Practice.*" Contrary to all the greatest doctors, whether of ancient or modern times, he there maintained that the blood, in the impressive language of Scripture, being "the life of the flesh"—the life of the *sick* as well as the life of the sound—instead of depleting and lowering the system when suffering from the fitful fever of disease, the preservation of this most precious of the fluids, by every possible means, ought in every case to be a primary object with both surgeons and physicians. Further, in the teeth of the whole tribe of doctors, he held that all diseases—even *local* diseases—erroneously so called—being each and every of them like the "fitful ague," distinguished by "chills" and "heats"—and all of them being more or less periodic and intermittent in their nature—each and every of them ought, from the first onset, to be combated like the same ague-fit, by *febrifuge* or fever-medicines; in other words, by the very opposite of depletion—bark, iron, wine, and such remedies as have for their common object the restoration or preservation of the normal corporeal *temperature* and *time*. Undeterred by the obloquy he met with on his first publication of these conservative views, he developed them more fully a year or two afterwards, in his work, "*The Unity of Disease;*" which treatise he followed rapidly up by his popular volume, "*The Fallacies of the Faculty, with the Chrono-Thermal System of Medicine.*" Upon the laity,

at least, this last publication fell like a thunderbolt; edition after edition was called for; translations and foreign reprints appeared in quick succession; and men at length began to wonder how they possibly could have so long trusted their health and their lives to the tender mercies of a profession composed, for the most part, of school-bound formalists and unmitigated pedants!

Distrusted by the public, numbers of the profession, in various parts of England, now for the first time began seriously to distrust themselves. "Statistics," or numerical comparisons, were appealed to, and, to the astonishment of the most eminent practitioners, as he had again and again predicted, even in apoplexy and inflammation of the chest, blood-letting was found to increase fatality in the proportion of three to one. Hence many great and most desirable changes in the practice of medicine—changes all more or less in accordance with the "heterodox views," considered, on their first publication, to be so "insulting to the intelligence of the entire profession." In place, for example, of bleeding, leeching, and otherwise lowering the vital force of the sick, certain physicians now began to give bark, iron, and wine, in cases where they themselves would formerly have expected nothing short of death from inflammation to be the result of such a plan. At a still later period some of the more eminent surgeons also found it imperative, in order to retain the confidence of the public, to turn over a new leaf, both as regards practice and opinion. How one of the most distinguished of these "eminent tragedians" has trimmed, the reader will see in the sequel.

THE RURAL STROLL.

(Continued from page 287.)

Away we stroll to the hill pasture to look for the milk-vetch and the pretty plaited-leaved lady's-mantle or alchemilla vulgaris, growing close to the ground, with its corymbs of yellow-green flowers. Now we come to the brow "where the wild thyme grows,"—"The thymy mound that flings unto the winds its morning incense." Here we may rest a while, and gather some of its labiated purple blossoms. Well does the sweet wild thyme support the character of its family, *labiatæ*, for odoriferous properties. Do not be surprised if you find some specimens covered with a hoary down. Our gathering of hill plants must greatly depend on our whereabouts, but this month and the next we may hope for some of the beautiful saxifrages to be added to our store. Could we take a step to the southern Irish hills, we might gather the *saxifraga umbrosa*, better known as *London-pride*, or none-so-pretty, on its native wilds.

Some will meet with the white-flowered dryas, a rosaceous plant, its leaves covered beneath with white down; and on our Welsh or Highland mountains, with the moss campion (silene acaulis), ornamenting the rocky hill-side with its purple blossoms. And now we have one of Flora's special beauties, a real fairy plant, four inches high, springing from the heath, or beneath the shadow of the moorland wood; it is the *trientalis Europæa*, a slender stem, with one or two slender leaves at intervals on its lower portion, at length throws out a whorl of delicate green oval leaves, from the centre of which spring one or two or three most elegant white flowers. The slender grace of the entire little plant is extreme. Common in Scotland, it is found in the north of England only.

Another form of beauty, but more conspicuous, have we in the bright yellow globe-flower, well-known in our gardens, but only seen to perfection when waving many flowers together on the moor in a breezy June day. It is a handsome addition to our *ranunculaceæ*. Thus, our ramble has brought us from the hill to the moor, and time almost is it for us to look after some of the numerous orchis flowers which meet us in many places. The young botanist will be considerably puzzled when he first examines an orchis flower. He will involuntarily exclaim, "Where are the stamens? Where are the pistil and seed-vessel?" He can make nothing of it. An orchis flower has a spur like the violet; it is supported by a twisted seed-vessel or ovary, which rises from a bract on the main stem; it has a slightly moist spot which answers to the pistil. No stamens visible, but stamen-pouches: opening one of these he will find

in each a little waxy-looking stamen or pollen moss. Allowing for variations, the above will afford some idea of the orchideous structure. Thus, an orchis can scarcely fail of being recognised after a few have been attentively examined, and scarcely will many be passed, for they are generally handsome and conspicuous. Now, one of them will, at least, tell of its whereabouts by another sense than that of sight—that of smell. The white butterfly orchis, or *habenaria* bifolia is extremely fragrant, and also the smaller white one; both are moorland wildlings. Many of our handsomest orchis flowers, however, are found in meadows, pastures, and on chalk soils; others are found in woods.

In our woodland walks this month, we encounter many plants, which also ornament our gardens: the columbine "with horn of honey;" the honeysuckles are at home everywhere; the privet; the guelder rose; black bryony, throwing its trailing stems and bright green heart-shaped leaves high up among the hedge-row shrubs, a handsome climber, in whose company, in the south, the clematis may be found. In the wood-betony we recognise another labiated friend with flowers resembling the red nettle. Away we joyfully go to the margin of the cool, refreshing stream or lake. The mare's-tail soon attracts our notice, close by which grow the water-milfoils with their numerous fine leaves and slender spikes. The bladderworts are another genus of our June flowering water-plants, and not the least curious. The yellow iris raises its stately head, "a thing of beauty," near which you may perceive the marsh-cinquefoil with its strawberry-shaped flowers, and the water-avens with its dull orange drooping flowers; also the elegant pink bog-pimpernel. The wild roses crown the hedges; the potentillas creep along the pastures in proximity with the plantains. But how shall we enumerate all the bright gems of earth, in which perchance we see what Eden was, what Paradise may be? Go where we will, beauteous Nature calls us, and displays her charms to our gratified senses.

(To be continued.)

Plain honesty is the very best kind of politeness, and temperance the very best physician.

CURE OF DIABETES.

TO DR. COFFIN.

DEAR SIR,—I feel it a duty I owe to you and your system of Medical Botany, gratefully to acknowledge my cure and give publicity to my case.

About three years since, I was suffering from the very (to me at that time) fearful disease, "diabetes," brought on by frequent colds and overmuch walking, being at that time in the Metropolitan Police Force. I went to our medical man, and was under him about twenty-one days, when he admitted that he could do me no good. I then went to St. Bartholomew's Hospital, and the "physican" stated I was suffering from "venereal disease," which I denied; he gave me some medicine, the properties of which I knew nothing about, but some called it "steel mixture." I took one pint and a half, and went again, but still grew worse, and so weak, that it was with difficulty I reached home.

My father having died some eighteen years before of the above disease, I had some knowledge of its symptoms. I went to our surgeon again and told him my fears: he said he did not think so, but after testing my urine, and making thorough inquiry, he said it was a fact, and that I had "diabetes" to a fearful extent, but added, he could do me no good; he would supply me with a few strong "tonics," and if I had friends in the country, I had better go at once. I told him I had, but could not go for seven or eight days; he then said, "My good fellow, in that time you may be in your grave."

I at once went to my old friend and lover of Medical Botany, and well known to you, Mr. Clarke, Sun Coffee House, Old Street Road, who at once undertook my case, with full confidence of success, though I had but little faith. He prepared a mixture, and gave a good supply of Lobelia pills, also, I believe, compound rhubarb pills: some herbs I took with me, and went into the country, never expecting to return. I took leave of my family for the last time. My friend cheered me up, and said, "You'll come home a strong man."

I persevered in the means, and in twenty-one days had to attend upon a surgeon at Wantage, for a certificate to

send to London for further leave, and he said, that if ever I had "diabetes," it had been removed from my system, and though weak, yet I should soon be well; and to the astonishment of all, myself included, I came home a strong man. From that time I revere your Medico-Botanical system, and believe it to be a system that will grapple with and conquer disease in every shape when the allopaths say all is lost.

Some time after the above, another man was seized with the same symptoms, and was fast sinking. I went to see him, found him in bed, unable to get up, voiding large quantities of urine which scented the room as though violets were there. He had continual thirst, and craving for everything that came near him.

I told him to stop taking his medicine for twenty-four hours, but not to let the surgeon know, and I would undertake to cure him. I set to work, and by the assistance of my friend, Mr. Clarke, made a mixture, and Mr. C. provided pills, and in fourteen days the man was out on duty, and is now a strong young man.

With a prayer that God may bless you and yours, and that under his care and guidance your system of Medical Botany may flourish, and still be made a blessing to the thousands of our race,

I am, sir, your humble servant,

WILLIAM MIDDLETON.

1, *Basing Square, Kingsland Road, London.*

A CURE OF FEVER.

To the Editor of the Botanical Journal.

SIR,—The son of Mrs. Helms, aged twenty-one months, living in the same street with myself, was attacked with measles, and attended by Dr. G—— for about a fortnight; the disease then "turned" to "slow fever," and in a few days the patient was given over to die. The mother knowing I had Dr. COFFIN'S "Guide to Health," and had treated my own child successfully in a similar affliction, wished me to see the child. I objected at first, but yielded to her entreaties, and gave it an emetic, and followed it up with the medicine recommended in Dr. COFFIN'S "Guide to Health," and the child is well.

If you could find room for this in your next Journal, I should feel obliged, to encourage others to go and do likewise.

I remain, yours faithfully in a good cause,

JAMES HOOKER.

Seymour Street, Buckland, Portsea, Hants.

REMARKS.

Here is another unsophisticated proof of the efficacy of Dr. COFFIN'S Medico-Botanical system. Again has an uneducated person, and that person only a labouring man, cured a child that an authorised surgeon either could not or would not, and left the child to die.

What in the name of common sense are the allopaths about? What a vast amount of professional ambition must this Dr. G— possess, to allow himself to be conquered by a poor labourer in a cure! Surely he must have made but a poor use of his opportunities for medical knowledge, or did not think the case worth his attention, to be thus foiled by a labouring man, with but just time enough to read Dr. COFFIN'S "Guide to Health." And behold, he cures after the other has given the case up!

Truly this proves the inestimable value of Dr. COFFIN'S "Botanical Guide to Health," by its enabling even the simple and unlearned to understand and cure disease. "Fondly then may the allopath boast his qualifications, whose very skill and talents even the unlettered foil."

THE ATMOSPHERE.

THE atmosphere of spots inhabited by living beings is, if we may be allowed the expression, but a confused assemblage of all that has passed from the solid to the fluid or to the soluble state through the agency of heat; of effluvia exhaled incessantly from the bodies which the air surrounds, penetrates, dissolves; odoriferous matter, consisting of numberless molecules eliminated from perfumed bodies; water vaporised or in a state of suspension; elastic fluids constantly produced by new combinations; smoke arising from the burning of so many different combustible bodies; of dust thrown into the bosom of the atmosphere by so many acts of necessity, and by by friction; all of which, carried away to some distant spots, are destined to become the nuclei of new bodies.

COMPARATIVE ANATOMY.

(Continued from page 286.)

COMPARATIVE anatomy bears the same relation to the veterinary art that human anatomy and physiology do to medicine. The peculiarities in the organic structure and functions of particular genera or species lead to corresponding peculiarities in their diseases and derangements. Hence a rational treatment of the disorders incidental to animals presupposes a knowledge of the generic and specific characters of internal organization. It seems superfluous to adduce the digestion of the ruminant order, or other analogous instances, in illustration of a truth so evident in itself.

Many animals are known to us as objects of alarm and terror, or of considerable though less serious annoyance. Some are directly formidable by their strength and ferocity, as beasts of prey; others by their noxious properties, as venomous reptiles and insects. Some ravage our fields and gardens, destroying the various vegetable productions; others attack our food and clothing. Some even perforate the planks of the largest ships, or the timbers of other submarine constructions.

A more extensive field is open to the philosopher, in the structure and economy of animals; in their analogies and differences; in the relation of their organisation and functions to the circumstances in which they are placed; and in the modifications corresponding to the infinitely varied combinations of abode, surrounding element, food, mode of growth and reproduction, &c., &c.

We see some sagacious and docile, capable of instruction, exhibiting mental phenomena analogous to our own—the germs or imperfect state of what when more developed is human intellect; others are stupid, ferocious, and untameable. Some are mild, sociable, and gregarious; others wild, savage, and solitary. Many surprise us by their curious instincts, as in providing for their abode, defence, or food for themselves or their offspring, by the unerring regularity with which each individual of the species, unaided by experience or instruction, obeys, as it were, the fixed law of destiny, in performing at stated periods the longest journeys, as in the migrations of birds and fishes, or executes the most perfect and intricate constructions, exceeding the utmost exertions, even of human skill and wisdom. Some have an acuteness of the external senses, particularly sight, hearing, and smelling, to which we are strangers; in some we are astonished by the force, in others by the celerity and variety, of motion.

Some live altogether on flesh, others on vegetable matter; some eat incessantly, as our common graminivorous quadrupeds, others are satisfied with a full meal once a day, as the beasts of prey; and others, as certain reptiles, will eat only once in several weeks, and can even support an abstinence of many months. To many animals the interruption of respiration for a minute or two is fatal; some can go without breathing for an hour, for many hours, or for days, and others pass months together without the exercise of this function, in a condition of inactivity and torpor hardly distinguishable from death. To many a slight injury of some organ is fatal; some survive the loss of the most important members, and even reproduce them; some, when divided into two or more portions, have the power of forming an entire individual from each fragment.

It is the business of the philosophical zoologist to observe closely all the circumstances of these interesting, and of many other analogous ones; to trace their connexion with the rest of the economy, and with the peculiar organisation of each animal; to compare together all the diversities and modifications, and thus to arrive, if possible, at the rational theory or just explication of their causes.

The gradations of organisation, and the final purposes contemplated by nature in the construction of her living machines—two interesting and much agitated subjects in the philosophy of natural history—receive their only clear illustration and incontrovertible evidence from comparative anatomy. Many naturalists have pleased themselves with arranging the animal kingdom in a successive series, according to external form, and have fancied it a peculiar mark of wisdom and beauty in the creation, that there are no abrupt changes, no breaks in the arrangement,

but the most gradual and gentle transition from link to link throughout the whole chain. These views will not bear the test of impartial scrutiny, which soon destroys the belief in such a chain of beings, so far as the basis of external figure goes. On the other hand, the pursuits of zootomy in unfolding the internal mechanism and its movements display the most evident transitions and gradations of organisation, and economy. We see classes and orders—as, for example, birds, and the testudines (the turtle and tortoise kinds)—which, by their external configuration, are quite insulated in the creation, connected in the most natural manner with others of quite different form, and united to them by the principle of internal resemblance.

The four component parts of the upper extremity, viz., the shoulder, arm, fore-arm and hand, can be clearly shown to exist in the anterior extremities of all mammalia, however dissimilar they may appear on a superficial inspection, and however widely they may seem to deviate from the human structure. The wings of the bat, osteologically considered, are hands; the bony stretchers of the cutaneous membrane being the digital phalanges extremely elongated. The dolphin, porpoise, and all other whales, have a fin on each side, just behind the head, consisting apparently of a single piece. But we find under the integuments of this fin-like member all the bones of an anterior extremity, flattened indeed, and hardly susceptible of motion on each other, but distinctly recogniseable: there are a scapula, humerus, bones of the fore-arm, carpus, metacarpus and five fingers.

The forefeet of the sea-otter, seal, walrus and manati, form the connecting links between the anterior extremities of other mammalia and the pectoral fins of the whale kind; the bones are so covered and connected by integuments as to constitute a part adapted to swimming; but these are much more developed than in the latter animal, and have free motion on each other. The bones of the wing of birds have a great and unexpected resemblance to those of the forefeet of the mammalia, and the fin-like anterior member of the penguin, applicable only to swimming, contains within the integuments the same bones as the wings of other birds which execute the very different office of flight.

The same point is illustrated by another kind of cases in comparative anatomy; viz., the existence of certain parts, generally in an imperfect state, or, in the anatomical phrase, as rudiment in some animals, where the function does not exist, and where the parts therefore are not employed.

It seems as if a certain model or original type, adapted to the intended function, had been fixed on as a pattern for the construction of nearly allied and analogous beings; and that this model has been adhered to, even in those cases where some particular function did not exist, and where, consequently, the corresponding organ was in reality unnecessary. The additional pelvic bones, which support the false belly or abdominal pouch of the marsupial animals, are found in the males as well as in the females, although the former have not the pouch. Several carnivorous animals have clavicular bones connected merely to the muscles, and obviously incapable of serving, even in the smallest degree, those purposes for which true clavicles are added to the skeleton. The breasts and nipples of male animals are another example.

The marsupial bones and milk-secreting apparatus of female animals are appointments of organisation manifestly designed to fulfil certain ends, and accomplishing very essential purposes in the economy. In the male sex they are neither subservient to use nor ornament, and seem to our imperfect knowledge to exemplify the prevalence in animal organisation of a mechanical principle of the adherence to a certain original type or model. The olfactory nerves of the cætacea, in which the blowing-holes occupy the place of the nose, afford another instance, the more remarkable, as their existence has been generally denied, even by the greatest authorities in comparative anatomy. They consist, in the porpoise, of two white, extremely slender filaments, which, although visible to the naked eye, cannot be distinctly recognised as nerves without a magnifying-glass. No subject has been more warmly contested than the doctrine of final causes, which, however, has suf-

fered more from the ill-judged efforts of its friends than from the attacks of its enemies. We can hardly conceive that any person, who did not feel a difficulty in believing that a watch was formed for the purpose of showing the hour, could seriously doubt that our stomachs were expressly constructed for digestion, our eyes for seeing, and the rest of our organs for the purpose which they fulfil. But one must be very fondly attached to final causes, to persuade oneself, as some have done, that the sea is salt, to preserve it from putrefying; that the tides of the ocean are designed to bring our vessels safely into port; that stones are made to build houses with; and silk-worms created in china to furnish the *belles* and *beaux* of Europe with silks and satins. It would be only one step further to assert that sheep have been formed to be sheared and slaughtered, legs to wear boots, and the nose for spectacles.

Nothing, indeed, can be more unsatisfactory than the well-meant but worn-out, complimentary effusions we are too often doomed to encounter, which, instead of evincing the wisdom of the creation, shew only the folly of their authors, or at least their misconceptions and short-sighted views. The physico-theologists seem to have considered it their duty to point out the end and purpose contemplated by the Creator in every natural arrangement. Thus they have sometimes fallen into the laughable absurdity of expatiating on the wisdom of certain provisions, which subsequent examination has proved not to exist at all. The foot of a hymenopterous insect was described as being perforated in a certain part by minute holes: immediately a sufficient use was discovered for this structure; it was described as a no less elegant than wise provision for sifting the pollen of plants, and thus applying the fine, fecundating powder to the female organs; and from the supposed structure and use, the creature received the name of *sphex cribraria*.

Unluckily for the compliment thus designed to nature, the part was afterwards discovered not to be perforated. Others again have so firmly believed, not only the wisdom of creation, but their insight into it, that they have called in question the existence of particular arrangements, because they could not discern the purposes to which they are subservient. Thus, when BLUMENBACH pointed out to CAMPER that the tadpoles of the Surinam toad *(rana pipa)* have tails, this great anatomist was disposed at first to deem the specimen a monstrosity, because he could not comprehend for what purpose these strange beings, so curiously lodged in the dorsal cells of their mother, should have the swimming tail of the common tadpole.

A distinguished English naturalist has argued that the fossil elephant bones must belong to some species still existing, because, says he, "Providence maintains and continues every created species; and we have as much assurance that no races of animals will any more cease, while the earth remaineth, than seed-time and harvest, cold and heat, summer and winter, day and night."

Unluckily for the credit of this gentleman's assumed acquaintance with the designs and schemes of Providence, we have the fullest evidence that many species and genera of animals have become extinct, only their fossilised bones remaining to prove they have existed, and also fully to prove that no such animals now exist.

The philosophic naturalist, guided by comparative anatomy, discovers at every step striking peculiarities in the economy of animals, founded on corresponding arrangements of organisation. We must take refuge either in verbal quibbles or in an exaggerated and unreasonable scepticism, *if we refuse* to recognise in this relation between peculiarity of structure and function, those *designs* and *adaptations* of *exalted power* and *wisdom*, *in testimony of which*, "all nature cries aloud through all her works."

(To be continued.)

ON BLOOD.

"For the life of the flesh is in the blood."
Leviticus, ch. 17, v. 11.

UPWARDS of three thousand years before the circulation of the blood was discovered by Harvey, the above great truth was promulgated by the Jewish Lawgiver Moses, and the discoveries of science are

every day demonstrating that in this statement, as in every other, the book of inspiration does not err. Literally the life *is* in the blood, for we shall see, as we proceed, that not only does that fluid provide the materials from which the loss of substance, that is every moment taking place in the human frame, is supplied, but it is the canal, or drain, through which the effete and worn-out elements of our organism are evicted from our constitutions. On the normal state of his or her blood, depends the health of every human being.

When I speak of blood, I must be understood as speaking of a fluid containing certain constituents absolutely requisite for health; for, although as Leibig has pointed out, it is the custom among physiologists and others to call the fluid which is contained in the arteries and veins of a human being, BLOOD, still it does not follow that the fluid so named *is* blood. It is generally styled so merely from its locality, because it is found in certain canals, and altogether independent of its containing those elements which together constitute normal blood; and without the slightest regard to its fitness as a fluid of nutrition for the support of the human body.

Now blood is a compound, as is distinctly visible to the naked eye, and as under a microscope, the minute red discs or blood globules swimming in the serum clearly prove; and being a compound, we must call in the aid of chemistry if we would study its constituent elements rationally and philosophically. We can thus understand how it varies under certain conditions, such as peculiar diet and regimen. That the condition of the blood and its power of nutrition is affected or altered by diet has been satisfactorily proved, and is in fact generally admitted, but a sufficient degree of attention has not been given to ascertain the sort of alteration. Certain articles of food, it will be at once granted, are less nourishing than others are; but although this fact will readily be admitted by all, how few will think it incumbent on them to take the trouble of ascertaining whercin they should be less nutritious than others! Here we see how chemistry can be turned into practical use: by its means we can dctect with mathematical accuracy, the nutritive element which is wanting, and can supply that deficiency, so that, by affording the incomplete element, the process of assimilation is made to become perfect, and in consequence the circulating fluid has poured into it those constituents which are absolutely necessary to keep the frame in health. Life itself depends entirely on the state of the blood which is kept normal through the process of respiration and alimentation. There must be a constant supply of nutritive food for the one process, and of fresh air for the other; neither is sufficient to support man alone. Without food he must die. In such cases, those who suffer from a lack of food, continue to take up oxygen from thc air as before, and to give off carbonic acid and water derivcd from the tissues of their own bodies. In every case of starvation, the man absolutely lives upon himself. First, all the fat becomes absorbed, and disappears in combination with the oxygen taken in, in respiration, afterwards by degrees such of the solids as are capable of being dissolved also vanish, until at last the particles of the brain begin to undergo oxydation, when delirium, mania and death speedily close the scenc. On the other hand the dreadful effects of an insufficient supply of oxygen in the air of respiration, was evinced in the deaths that took place from that cause in the Black Hole of Calcutta, with which all are familiar.

The object of all treatment is to restore to health by bringing about proper assimilation; this process is perfect only when the entire circulating mass and the secretions come up to the normal standard. Holding this rcsult in view, and for thc sake of convenience and briefness, I have named the processes of chemical and microscopical examination and restoration of the secretions to the normal standard, THE ASSIMILATIVE TREATMENT, because unless these are all normal, due assimilation does not go on. From time immemorial medical men have directed their attention to the results of disease instead of to the cause; they havc contented themselves with attending to and attempting to relieve symptoms instead of grappling with

the original evil. There are honourable exceptions to the great herd of routine practitioners—men who, instead of jogging quietly on in the beaten path of their progenitors, have had the courage to think for themselves, and having done so, to promulgate their opinions. As might have been anticipated, the great mass of their fellows have done their best to pooh-pooh down all such presumptuous attempts at individual opinion, and the names of charlatans, quacks, fellows of one idea, specialists, humbugs, &c., have been freely applied to them; but, alas! for the ease of these comfort-loving gentlemen of the profession (their name is legion), who delight to walk in well beaten paths, and who hate the trouble of being obliged to think for themselves, so as to be able to give a reason for the faith that is in them—these troublesome fellows, instead of being cowed, have had the audacity to endeavour to indoctrinate the world at large with their peculiar ideas; and, worse still, they have so far succeeded, that the world of patients has become somewhat restive. In the good old days, the duty of the medical man was oracular he had only to prescribe, and the pills, potions, black draughts, &c., were swallowed with implicit faith; but now, "what can have come over the people? they will so ask questions." That they do, and by so doing they not unfrequently pin the "doctor" into some most uncomfortable corner. The real fact is, that as a body the medical profession have stood still while society has been advancing: there are many exceptions, but the great mass are content to go on practising just as their fathers did, sixty years ago: bleed blister, purge—purge, blister, bleed. THE PEOPLE have become better educated. They have learned something of anatomy something of physiology, something of chemistry, and it is only natural that they should wish to know why they have a pain here, why an oppression there. A patient being the most interested party in the state of his own bodily health, is entitled to a considerate and intelligible reply to such questions as his most legitimate anxiety may prompt; and the English language is quite comprehensive enough for practical purposes, excepting where a man wishes to hide his ignorance under a cloak of mystery.

But while the specialists have the credit of stepping out from the ignoble "ruck," and of thinking for themselves, yet their very "specialism" points out how far they have stopped short of what was required. They have each ridden *his* speciality to death, utterly neglecting every other speciality: thus, one has bestowed his whole attention on the urine and its deposits; another to the sputa; another to the sexual secretions; another to the intestinal, &c. One traces every disease to the stomach, another to the brain, and another to the uterus. The poor unfortunate patient hearing so many directly opposite opinions from each separate practitioner consulted, very pardonably adopts the conclusion that it is all humbug; that the "doctors" know nothing about it, and losing faith in legitimate medicine altogether, turns in despair to Morrison or Holloway, as a drowning man clutches at a straw; and with the usual melancholy result.

Disease must be treated in the same rational manner as the other affairs of this life are. The days of mystery are over. What does any farmer, or at least any agriculturist worthy of the name, do when he finds his fields yielding a poor crop—say of turnips? does he go on trenching and draining, ploughing and harrowing? No; he sets himself to ascertain the reason his crop of turnips has been short: he takes some of the soil; he analyses it himself or gets it analysed for him; he then finds that it is deficient in phosphate of lime; he knows that until he adds this phosphate of lime, it will be in vain to do anything else; no turning up of the soil will supply the necessary constituent for turnips. He adds the phosphate, and gets a healthy crop. As with turnips, so with corn. If turnips will not grow without phosphate of lime, neither will corn without silica. This homely comparison betwixt mother earth and the human frame, may appear ridiculous to some; but still it is strictly legitimate. As the crop on a field testifies to the state of health of that particular field, so does sickness or the reverse testify to the sanatory condition of the human being. If one of the con-

stituents of the soil is absent, the crop will be deficient and if any of the component parts of the normal human secretions be wanting, the result will be broken health.—*J. Kinniburgh, M. D.*

LUNAR INFLUENCE.

Even though we may consider with some distrust the power of lunar influence asserted by some, still we have a multitude of facts, that induce us to believe in this power, either alone or in combination with the sun, on human life. Chancellor Bacon was subject to syncope during the eclipses of the moon; Matthew Faber, in his works, speaks of a gentleman who always spent the days preceding an eclipse, buried in thought and melancholy, and who, when it took place, rushed headlong into the streets, striking with his sword everything he met. A young girl is reported by Hoffman, as labouring under an extraordinary painful swelling, beginning and finishing with the increase and decrease of the moon, &c. In all parts of the globe, men have thought they recognised lunar influences on the crises and exacerbations of disease. The phenomena of the invasion and duration of fevers appear to be controlled by that influence. This is seen more distinctly as we approach tropical climates, where generally the operations of nature partake of a development very favourable to scientific investigation. Dr. Jackson states, that in Jamaica, the febrile intermittent and lunar period correspond. Dr. Lind observed the same phenomenon, and adds that deaths occur mostly during the ebb of the tide, and that eclipses produce dangerous relapses to those ill of fever. Dr. Balfour, in the "Asiatic Researches," says, that when the sun, during the equinoxes, by approaching the equator, increases by his power the attraction of the moon, with the increase of the tides occur also the increase of violent fevers and mortality.

EFFECTS OF THE SUN ON HUMAN BEINGS.

The sun being the centre of our planetary system, has also independant and more extensive influences. Without recurring to the more minute or apocryphal, we will advert at once to those exerting powerful effects on the human frame; although the reader, curious in such matters, may find in scientific works many very remarkable examples of the former: persons losing daily all powers of vision at sunset, and amongst others, that mentioned by M. de Humboldt, of a noble lady, the Countess de K——r, who lost her voice when the sun disappeared, and only recovered it at its rising.

By the variation of the relative position of the sun in the ecliptic, are produced the seasons, and by the seasons is the human frame greatly influenced. Statistical reports prove that the incipient of the human being, as well as its death, are subject to their power.

THE ACTION OF SOUND ON OUR PHYSICAL NATURE.

In addition to its effects on the mind, and on the nerves, sound being produced by the vibrations imparted to the air, it is difficult at all times to distinguish and separate the modes of its action on man. The gunner has his ears frequently bleeding from the report of the cannon he fires; great concussions produce deafness, and sometimes death; the fish die and float on the surface of rivers and moats, near which sieges or battles take place. From an ignorance of these properties of sound, great disasters have occurred: generals have incautiously blown up their ammunition in a retreat, and numbers of the soldiers and inhabitants of the country have fallen victims to the sonorous percussion. In the writings of eminent military surgeons, will be found records of the spasms and agonies felt by soldiers in their wounds, or the stumps of amputated limbs, together with lists of diseases that are aggravated by the report of artillery, and which render men unfit for the artillery service, although possessed both of inclination and courage to perform its duties. Facts are moreover recorded, that convey a still greater idea of sonorous percussion; the explosion of many pieces of cannon is said to clear a threatening sky from clouds and electricity, and to have dispelled diseases in the atmosphere, as is reported to have occurred at Warsaw, and formerly at Gibraltar.

THE SEWAGE OF TOWNS.—A preliminary report of the Royal Commission appointed to inquire into this subject has just been presented, which embodies also a plan for dealing with the sewage of the metropolis. From this it appears that the Thames, before it reaches the point from which the water supply of London is at present derived, receives in its course the refuse of districts containing upwards of 700,000 persons. Water, when polluted with sewage matter, is eminently unfit for human consumption, and also destroys the fish, as was the case at Leicester, until the liquid sewage was rendered innocuous by chemical processes, since which time the fish have again appeared. In the prosecution of their inquiries the Commissioners have visited Tottenham, Croydon, Leicester, and Cheltenham, in which towns works are carried on for the purification of the sewage; also Rugby, Watford, Rusholme, Mansfield, and Edinburgh, where sewage is applied in a liquid state to the adjacent lands, besides several farms over which manure is used in a similar manner; and a deputation visited Milan to observe the sewage manuring processes adopted in the neighbourhood of that city. The results have been found so satisfactory that in some cases very valuable meadows have been created from that which was formerly mere barren sea-sand, while the absorption is so rapid that no offensiveness is appreciable, even in hot weather, within five minutes after the application of the liquid. For large towns they are of opinion that the precipitation process is the best, allowing the water after purification to pass off, and leaving the thick "sludge" alone to be used for manuring purposes; and this plan they propose for London. They likewise recommend the immediate execution of the embankment scheme, and other improvements, propounded by the Metropolis Improvement Commission of 1844, the cost of which is estimated at £3,250,000, exclusive of any approaches which may be formed in connection with new thoroughfares.

In No. 255 of our Journal, an advertisement of Mr. Brockies appeared, announcing his being the only Accredited and Authorised Agent for East and West Hartlepool. Our Editor, not knowing that

CAPTAIN JOHN NAYLER,

of St. Hilda-street, Old Hartlepool, was Accepted Agent for West Hartlepool, allowed its insertion. Captain John Nayler not only was our Agent in 1850, but also is our Accredited Agent for West Hartlepool, who continues to dispense all the Herbs, Roots, Barks, Powders, &c., used in Dr. COFFIN'S Medico-Botanic System of Medicine, of whom also may be obtained all Dr. COFFIN'S Medico-Botanic Works.

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By one of Dr. COFFIN'S Agents, a respectable Youth (as an Apprentice) who is desirous of being prepared for the Botanic Practice.—For Terms, &c., apply to BENJAMIN SCOTT, 5, Market Street, Oxford.

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The contents of this important pamphlet were agreed to by a Committee of Gentlemen (Medical Botanists), nominated by Dr. COFFIN and the Author; also by the Committee of the Agents' Society in connection with Dr. COFFIN: the latter Committee advised its publication.

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G. CALDWELL,

Surgeon and Practitioner of Medical Botany, Proprietor of the Botanic Dispensary,

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Mr. CALDWELL may be consulted daily, from 10 to 12 in the morning; from 2 to 4, and from 6 to 8 in the evening (Sundays excepted).

NOTICE.

In addition to the 3,380 Pamphlets on Medical Progress, noticed in our last, the following orders have been executed, namely:—Mr. T. Andrews, Willoughton, 104; Mr. F. W. Crick, Bedford, 104; Mr. T. Blinkhorn, Stratford, 104; and Friends, 81; making the number sold 3,773.

SUBSCRIPTIONS
FOR THE BOTANIC HOSPITAL.

Mr. John Tinning, Carlisle £0 2 0

NOTICES TO CORRESPONDENTS.

All letters should be addressed, "To the Editor of the Botanical Journal, 134, High Holborn."

POST-OFFICE ORDERS and all communications for goods, &c. to be addressed to WILLIAM FORD, 134, High Holborn.

The Botanical Journal and Medical Reformer is published Fortnightly, at No. 134, High Holborn, London, where all orders must be addressed.

COFFIN'S
BOTANICAL JOURNAL
AND
MEDICAL REFORMER.

"Human experience, which is constantly contradicting theory, is the great test of truth."—Dr. Johnson.

No. 264—Vol. VIII. SATURDAY, JUNE 26, 1858. Price 1d.

MEDICAL REFORM.

The above seems to be at the present time the grand topic of the day, and we, in our humble capacity, think it one of the most important reforms that can be agitated, either in or out of Parliament. We think that there is no class of men to whom this applies, so much as to the medical men themselves; and if they wish a reform, such as would benefit "the poor and the ignorant," why not adopt a theory and practice that will cure the sick? Why, in the name of science and humanity, continue a course, that not only fails in its effects to cure, but often produces a large amount of injury and distress? And if our present *systems* of medicine cannot stand without being propped up by a legislative enactment, why there must be something wrong somewhere. We have been induced to make the above remarks, from reading a letter from a Mr. E. Wilkinson, L.R.C.S.E.L.A.C.L.M., published in the *Cumberland Pacquet*, in which the *learned* and scientific writer has rather exposed too much, and also has shown that he has rather a vindictive feeling against any innovator: we will, therefore, make a few remarks and quotations, and as Mr. Wilkinson, L.R.C.S.E.L.A.C.L.M., &c., has thrown down the gantlet, we do not mean to let judgment go by default; observing, by the way, that, if his practice of medicine bears any proportion to his string of titles, it must be *prodigious*, as Dominie Sampson would exclaim. We agree with him thus far, however, that the interest of the public ought to be the paramount object of legislation; but we would ask his titleship, Has the allopathic system of administering the whole host of poisons, both mineral and vegetable, joined to bleeding, blistering, cupping, leeching, and starving, benefited the public? Look at the results of allopathic practice, and we defy you conscientiously to answer, Yes. Would Mrs. Trotter, of Durham, have died so suddenly, if poisons had not been used, administered, alas! by her husband, through mistake? Would Mr. Stafford, M.P., have died so prematurely, had not Dr. Griffin given him near half an ounce of hyoscyamus, half an ounce of laudanum, and half an ounce of ether, in two hours; and then, after another hour, another full dose of these poisons, besides having Mr. Stafford beaten on the soles of his feet, and upon his legs, with battledores, four inches broad, eighteen inches long, and half an inch thick, for the space of ten hours and a half, without intermission, and breaking a dozen of them about him into the bargain—a splendid specimen of allopathic practice this! We think he must have been in the last stage of raving madness to have treated a patient thus; and yet the system which tolerates these flagrant things, Mr. W., &c., &c., &c., would uphold. What would have been said if we or our agents had acted thus, instead of diplomatised men? Why we should have been transported for fourteen years for manslaughter. These things, however, we have the consolation to aver, never can happen under our medico-botanical system, eschewing, as we do, all poisons, all depletory means. Trace the results of allopathic practice, and

candidly say whether it is not high time for a radical change to take place. An universal medical corruption reigns at this moment in England. There is no hope, there can be no hope, for suffering humanity, till the sane and sound awake from their lethargy, till the laity learn to think for themselves! Mr. W., &c., &c., &c., ignorantly class us and our agents with the illiterate quacks and compounders of patent nostrums, holding us up with them to execration. Mr. W. really does not know the true meaning of the term quack; we will enlighten him on the subject. The term "quack" means a "tricking practitioner in physic," one who pretends he has secrets which can cure all diseases. This appliance to us, therefore, falls to the ground, for we utterly disclaim all secrets, all mystery; we have published to the world our remedial system and botanic medicines; have avoided all technical absurdities, and have enabled thousands to cure themselves. Can the allopaths say as much? It would really require a very clear-sighted person to define on which side the greatest quantity of quackery exists, whether among the privileged practitioners or the quacks and nostrum-mongers. We extremely doubt the capability of the rich to distinguish between the skilled and the unskilled in medicine, for the medical man who is most in fashion is generally their doctor, they being more ignorant by far than a vast number of the humbler classes, and certainly do take the quack patent nostrums with avidity, for it is not the poor who can, by taking the patent rubbish, contribute so largely to the revenue. Restricted means, under no circumstances, infer ignorance; and we do state, that a vast majority of the working and middling classes are better judges of what is for their good, in a medical point of view, than the rich and highly educated, especially if by education is meant the acquirement of the Greek and Latin languages, and the many refinements that by no means bear upon the subject. "It ought to be borne in mind, that the suppression of quackery constitutes the very first and essential principle of Medical Reform; and unless this be at once achieved, all Medical Reform Bills will be unavailing." We are of opinion, that the writer should have said that the suppression of quackery constitutes the very first principle of medical MONOPOLY! for, where is the professor or tradesman that requires any other source of success, than his merits? A *fair* competition is all the talented professor, the scientific doctor, or the clever tradesman asks to insure him success; and if our medical men can cure the sick, and that fact becomes known, as it surely will, what have they to fear from the innovations of quacks? "I presume that the number of quacks," says our writer, "of every kind and degree, now practising their unlawful and unhallowed avocations throughout England and Wales, cannot be less than about 60,000! Is it not high time, then, that medical men were bestirring themselves, and endeavouring to get Mr. Cowper to insert a prohibitory clause in his bill to suppress quacks and quackery in this country?" In the first place, we would ask the medical monopolist, how can so many ignorant pretenders live in the midst of so many learned medical men? Why, as we have above hinted, they could not live at all, if it was not for the entire inability of those *very learned doctors* to cure the diseases to which mankind are subject! What! Mr. Wilkinson! sixty thousand unlearned quacks living by their profession, and some of them "driving a trade at the rate of £100,000 a-year!" No, Mr. Wilkinson! until you and your brethren can cure, as the public have a right to expect at your hands, do not ask for Parliament to interfere in your behalf! If we were consulted, we would advise *Mr. Cowper* to bring in a bill to stop the practice of all those *who could not cure the sick.* We would not ask for them to be fined and imprisoned, as the vindictive Mr. Wilkinson would have them; we should think it sufficient to stop them, if any legislative power was required; but this, as we have before stated, would not be required, for talent, like water, will ever seek its level. Nor will any law, however severe, make one M.R.C.S., who has got his diploma by attending to a *grinder* some few weeks (before he "*goes up*" for his examination), instead of close

study, know any better how to relieve the sick and distressed. We are, by the profession generally, put down among the greatest of the quacks; but, as far as we have got a reputation, or notoriety, it has been gained by curing patients, that the medical profession had failed to cure, both from their hospitals and the private practice of some of the most eminent among them. We, therefore, as far as our system (which has been denominated "Coffinism") is concerned, ask only to be put upon an equality with others. We should think ourselves debased, if we should ask the government to pass a law to compel all the medical practitioners to become *Coffinites;* that they should no longer give their potent poisons; that they should bleed no more, blister no more, or starve no more; notwithstanding, we consider it not only an evil, but a great injury. Yet such is our confidence in public opinion, that we are sure, if those things are brought there for decision, that we shall have a righteous judgment.

24, *Montague-place, Russell-square.*

TO OUR AGENTS AND SUBSCRIBERS.

We regret that we are unavoidably compelled to disappoint our friends by the postponement of our coloured plant due this present number of our Journal, on account of drawing, engraving and printing a set of the new series ready for colouring, taking more time than we anticipated. Nevertheless, we trust the great improvement which will be discovered in this feature of our Journal, will not only fully excuse us for this temporary delay, but will meet with that approbation our exertions, increased expense, assiduity and anxiety to make the Journal more and more valuable to all deserve.

We have received several hints and communications expressive of the wishes of our correspondents, that we should enlarge the Journal, in order to compete with other periodicals of the day.

We reply, first: the original articles contained in our Journal are the result of great experience and research; secondly, the extracts compel us to have recourse to various works, the contents of which we deem of paramount importance for the information of our readers, and not like the tales of imagination, in some of the serials, of questionable morality, in others, all leading to no permanent good, but simply an amusement for the present time, and the gratification of a sickly and weak mind, more and more weakened by the continuity of reading them, and tending to disgust the readers with the realities of life, and unfit them for any course of reading or study that would inform and strengthen their minds, and be beneficial in after life. Thousands, nay, hundreds of thousands, of these periodicals find their way into the various shops for waste paper, and sold at three shillings and sixpence per cwt., which, in point of fact, is the best use they can be put to, when not a leaf of ours but what is preserved and appreciated.

So much for the intrinsic value of our Journal, as contrasted with the ephemeral literature of the day. However, such is the general bias of the human mind, that it prefers anything which administers to its present whims, amusements and trifles, rather than be devoted to the attainment of that which would improve and ennoble it: and, alas! this sickly trifling "grows by what it feeds on." We reiterate, that the publishing of our Journal is attended with absolute loss, and to a considerable amount too, yet we will carry it on with all the energy in our power, and we are proud to say, that since our connexion with it, we have received numerous letters commendatory of our exertions, and expressive of general satisfaction.

As to the enlargement of the Journal, if every person who feels an interest in our inestimable cause, and the spread of Dr. Coffin's medico-botanical system, would become, not only subscribers, but influence their friends to become the same, and use their united endeavours to promote the sale of our Journal, so that it might equal, say the *Family Herald* or the *London Journal*, and some few others, we will gladly enlarge it. The means of carrying this into effect rest chiefly with our well-wishers, and if they will increase the sale by their exertions, they will not find us behind in acting in accordance with their wishes.

EXPLANATION OF MEDICAL TERMS.

Few of our readers have medical works of reference; by far the greater number have no opportunity of even consulting them. The consequence is, that if they get into company with a medical man, who begins to converse upon disease or scientific subjects connected with his profession, they are so puzzled and mystified by the technicalities he makes use of, that he might as well talk Sanscrit or any other uncommon language, for aught they can make out or understand; for it is not the province of all to know Greek or Latin. In order to obviate this difficulty, we have deemed it advisable to devote at least a column in every number of our publication to an explanation of terms made use of by medical men, and giving them in plain English, so that, should they be placed in the above circumstance, our readers will not be so much in the dark; and we do think that this new feature of our publication will be hailed with delight and gain universal approval.

NOSOLOGY.

(The classification of diseases.)

CLASSES,

WITH CHARACTERISTIC SYMPTOMS.

CLASS.	
1. Pyrexiæ.	After cold shivering, a frequency of pulse, increase of heat, and diminution of strength.
2. Neuroses.	Affections of sense and motion, disturbed without pyrexia or local disease.
3. Cachexiæ.	A depraved habit of body without the two former.
4. Locales.	Diseased affections which are partial.

ORDERS,

DISTINGUISHED BY THEIR SYMPTOMS.

ORDERS.	
CLASS I.—PYREXIÆ.	
1. Febres.	Pyrexia without primary local affection.
2. Phlegmasiæ.	Pyrexia with local pain and inflammation. The blood, after bleeding, shows the buff coat.
3. Exanthemata.	Contagious diseases beginning with fever, and followed by an eruption on the skin.
4. Hæmorrhaigæ	Pyrexia with discharge of blood, which shows the buff coat.
5. Profluvia.	Pyrexia with increased excretions.
CLASS II.—NEUROSES.	
1. Comata.	A diminution of the powers of voluntary motion, with sleep or the senses impaired.
2. Adynamiæ.	A diminution of the involuntary motions of either vital or natural functions.
3. Spasmi.	A diseased contraction or motion of muscular fibres.
4. Vesaniæ.	The judgment impaired, without either coma or pyrexia.
CLASS III.—CACHEXIÆ.	
1. Marcores.	Universal emaciation.
2. Intumescentiæ.	General swellings.
3. Impetigines.	Cachexia, deforming the external parts of the body with tumours, eruptions, &c.
CLASS IV.—LOCALES.	
1. Dysæsthesiæ.	The senses injured or destroyed by the imperfection of the organs.
2. Dysorexia.	The appetite deficient or depraved.
3. Dyscinesiæ.	Diminution or abolition of the power of motion.
4. Apocenoses.	A superabundant flow of blood, or humours, without pyrexia.
5. Epischeses.	A suppression of excretions.
6. Tumores.	Partial swellings without inflammation.
7. Ectopia.	Parts displaced.

PETITION OF THE MEDICAL BOTANISTS.

We have great pleasure in reporting the progress our petitions are making as regards their presentations by the various members, and contrasting them with the petitions of our opponents, extracted from the thirty-seventh, thirty-eighth and fortieth Parliamentary Report of the Select Committee.

MEDICAL PRACTITIONERS' BILL.

Total number of petitions . . .	117
Ditto signatures . . .	624

DR. COFFIN'S MEDICO-BOTANIC SYSTEM OF MEDICINE.

Total number of petitions . . .	45
Ditto signatures . . .	13738

Showing the balance in favour of our cause of 13,114 signatures.

Average number of votes to each petition of our opponents . . .	$5\frac{39}{117}$
Ditto of our friends . . .	$315\frac{13}{45}$

Thus showing the average signatures of one of our petitions contains nearly as many names as their whole 117

The regular practitioners, our opponents, simply represent themselves, yet are particularly anxious to be thought the only true representatives of the public in general.

The signatures appended to our petitions truly and faithfully represent the public, who are the more capable of forming a correct judgment, because they are the parties who have been and are the recipients of the benefits conferred by Dr. COFFIN's Medico-Botanical System.

MR. PUNCH AND MEDICAL BOTANY.

We insert the following from our humorous friend Mr. PUNCH, with our answer to his witty effusion:—

THE MEDICAL WISDOM OF PARLIAMENT.

A petition was presented the other day to the House of Commons, "By Mr. Hardcastle, from practitioners, followers, and adherents of the medico-botanical system of Dr. Coffin, in Bury St. Edmund's, praying that Dr. Coffin's system may be considered in any scheme of medical legislation." We quote this piece of Parliamentary intelligence not for the purpose of pointing out the curious coincidence between Coffin, Bury, and "the medico-botanical system" which it contains, but for that of displaying the absurdity of the petitioners' prayer. It is a remarkable fact, that a great many petitions to the same effect with this one from Bury St. Edmund's have been presented to the House. What can the House of Commons know, how judge, of "the medico-botanical system of Dr. Coffin?" Dr. Coffin may be a very different person from Professor Holloway, but the difference between Holloway and Coffin can be hardly appreciable by an honourable but unscientific House. If Coffin's system is to be considered by the House of Commons, why should not Hahnemann's; why should not Morison's, why should not the advertising systems of the deleterious rogues whose puffs disgrace the columns of too many newspapers? All that Parliament can do in legislating upon medicine, is to make due provision that none shall be admitted to practise it but those who shall have proved themselves, to the satisfaction of competent persons, sufficiently well acquainted with those sciences on which alone true medicine can be based. As to what true medicine is, if there is anybody who shall decide when doctors disagree, surely that body is not the House of Commons.

So, so, Mr. Punch, Dr. COFFIN has, at last, come under your satirical lash. It is an old adage, as old as your immortal self, that, "the nearer to church the farther from God." So with COFFIN and Bury, for Dr. COFFIN has been the means of rescuing from the burial ground thousands who had been given up by the regular practitioners; analogous as Dr. COFFIN's name is with interment. Now, my funny fellow, wherein is the absurdity of the petitioners' prayer? The unprecedented good done by Dr. COFFIN, and his Medico-Botanical system, is the grateful theme of thousands; and it is but just to petition for the same privileges that other medical bodies possess, especially when so many individuals of those bodies have been proved so incompetent. Dr. COFFIN, and the practitioners of his system, have cured, and continue to cure, in very numerous cases, after patients have been given up as incurable by the diplomatised men of the faculty; in proof of which, read Dr. COFFIN's "Botanical Journal."

Dr. COFFIN IS a very different person from Professor Holloway, and the whole host of quacks and compounders of patent nostrums, he having been educated in America for the profession, and obtained the degree of M.D.

His Medico-Botanical System is the result of great experience and extensive practice, utterly discarding all mineral and vegetable poisons, using only such botanical medicines as act in accordance with nature's laws, utterly rejecting all blood-letting and depletory means, and

having recourse only to such botanical remedies as assist nature in her efforts to expel disease and restore the sufferer to pristine health, besides being untechnical, and, therefore, rendered plain to the meanest capacity.

What, my facetious friend, has gained your periodical such wide-world renown but its merit? Surely, then, you cannot be so inconsistent as to traduce the merit of others. The quack medicines are a disgrace to the age, and would have been put down long ago, but for the revenue they yield to government; and were it not for the gross incompetency of medical men generally, they never would have had such an enormous sale.

Every city, town, village and hamlet is provided with a sufficient number of medical men, and were their efficiency in any way equal to their number, quackery would fall. The public, finding their inefficiency, have resorted to the patent nostrums, "as drowning men catch at straws;" and, alas! with the same results.

Thus, the difference between "COFFIN and Holloway" is by no means so "inappreciable" as you infer, but obvious to the dullest intellect.

Your concluding remarks, my dear Punch, prove that you have not read the petition; else you would have found that Dr. COFFIN, and the practitioners of his system, are desirous of standing by their own merits, and earnestly wish that the practice of medicine should be thrown open to all who are able to pass a proper examination, so that every man or body of men might rest alone on his or their own merits, well knowing that society will do them justice, and he or they who are the most competent and successful, will justly gain the greatest support.

I, therefore, respectfully suggest the propriety of your visiting the shop of Mr. W. B. Ford, Dr. COFFIN'S General Agent, 134, High Holborn, for the purpose of not only reading the petition, but also signing it, and adding your all-important support to so liberal, just and non-monopolising a cause.

I have the honour to be,
Mr. PUNCH,
Yours with profound respect,
134, *High Holborn.* A COFFINITE.

FACTS FOR FAMILIES.

From the "Destructive Art of Healing."

(*Continued from page* 291.)

OF the many living *medical* professors who had, previously to this time, published practical works on disease and its treatment, several of very high reputation have openly acknowledged their errors. Some, on the contrary, without any such acknowledgment, have, on one pretence or another, actually unwritten all they had once advocated in former editions of their work. Not the least conspicuous of these is Dr. Alison, of Edinburgh—the same Dr. Alison, be it observed, who, only a few years back, held blood-letting to be an universal remedy. Strange as it may appear, the Edinburgh professor does not now bleed even in inflammation of the chest! Nor is he alone in this wonderful change; many London professors, of equal celebrity, having adopted the author's own practice in this and other respects. More particularly he may instance Dr. Todd, late Professor of Medicine in King's College, who thus writes on this very subject of inflammation of the chest:—"The plan of treatment which has been recommended by some of our *highest authorities*, I need not tell you, is that by bleeding and tartar emetic. You bleed early from the arm, and, if necessary, you bleed a *second* and *third* time; and if under this treatment, resolution (cure) does not speedily take place, you bleed locally by *leeches* or *cupping*, and likewise give tartar emetic more or less freely; to all which, counter-irritation (by blisters) may be superadded in the more advanced stages. I have had ample experience of this treatment, and I must confess that experience has so little satisfied me with it, that I have for some years *ceased to adopt it;* for under this treatment I have seen *too many die;* and when recovery has taken place, in too many instances has it been with a tedious, lengthened convalescence." Considering how strenuously Dr. Todd himself, not many years ago, advocated by his own "high authority" the practice he now reprobates, the author cannot see what injury could accrue to his fame had the learned professor honestly and

candidly named the author whose more conservative treatment of pneumonia, by bark ("quinine") and other febrifuges, he, in common with so many others, now so very particularly imitates! Equally silent on this point, however, have been certain other eminent London physicians —Dr. Marshall Hall, for example, Dr. Watson, and Dr. Copland, who have all very recently, more or less, come round to the opinions and practice the author himself was the first to propound, and for which, in the first instance, he experienced at *their* hands—mark that, reader—so much bitterness and hostility! Even among the surgical writers examples may be found of a similar want of candour when performing the process of self-stultification. Witness Sir Benjamin Brodie, in his own favourite field, in the field where he has so long reigned as the first of authorities—the "Diseases of the Joints and Spine." Not till, in his own opinion at least, he had very satisfactorily tested his views by the experience of a certain number of years of hospital and private practice, did Sir Benjamin—then Mr.—Brodie feel justified in publishing his first work on these complaints. Mr. Brodie came out as an authority on spinal and joint complaints for the first time in 1813. Then, for the guidance of students and young surgeons, he recommended bleeding, leeches, cupping, setons, and caustic issues, as the best treatment of both disorders. And so satisfied was he with the "advantageous" results of that treatment, even so late as 1834—after, in fact, TWENTY-ONE YEARS' FURTHER EXPERIENCE of hospital and private practice—he still held that nothing better could be done. Certain, at least, it is, in an edition of his work published that year, Sir Benjamin Brodie did not think it necessary to make any alteration in his treatment of joint and spine diseases, by leeches, calomel, and cupping — using these exhaustive and repulsive measures *then* even in cases of "chronic inflammation"—in other words, in cases where the patient had been worn out, bodily and mentally, by long previous sickness! And in so far as blisters, setons, and caustic issues were concerned, this eminent surgeon still continued to express himself perfectly pleased with the "singular benefit" resulting from these "advantageous" remedies. Nor did "THE UNITY OF DISEASE"—a copy of which work the author sent him a few years afterwards—seem at first to convince him that one and all of his own boasted measures were a blunder and a barbarism throughout. Twelve or fourteen years later Sir Benjamin Brodie had discovered an error. In 1850—reader, mark the date—the Chirurgical Baronet brought out a new work, which he was pleased to call the "sixth edition" of his "Diseases of the Joints and Spine, with *additions* and *alterations*." Many and great are the "alterations" here. In this new *edition*—if new edition it can be called—Sir Benjamin Brodie completely abandons every one of the more prominent measures on which he had, for upwards of *thirty* years, very particularly plumed himself; while the "additions" with which he couples his "alterations"—if the truth may be told—are neither more nor less than so many simple "subtractions" from the pages of a writer he and his friends had for years affected to despise, as "the madman who wrote '*The Fallacies of the Faculty!*'"

What does Sir Benjamin Brodie say about the diseases of the joints and spine in his edition of 1850? In every and each of his *five* former editions he speaks of these complaints as mere local, complaints, to be best treated by local depletory means. This mistake of his "early life" he now corrects. One and all of them, he now assures us, are the unquestionable results of some previous constitutional disturbance. "A more enlarged experience," he confesses, has satisfied him that, in common with the great majority of so-called local disorders, the diseases of the joints and spine grow out of "some *antecedent* morbid condition, either of the circulating or nervous system." And in proof of his altered position, Sir Benjamin Brodie now, for the first time, points to a series of phenomena "not unfrequently" witnessed in such cases—namely, certain *periodical* changes, certain "alternations of temperature," which affect the diseased joints "as regularly as an *ague*." Therefore,

totally discarding every depletory measure whatever, Sir B. Brodie now treats all diseases of the joints and spine by bark (quinine), iron, and other febrifuge medicines, particularly recommending, also, attention to temperature; while the setons and caustic issues which, even in the edition of 1834, he tells us he had in most cases found to be very "ADVANTAGEOUS," and "usually of SINGULAR BENEFIT" to his patients, he now stigmatises as the "PAINFUL and LOATHSOME treatment" with which he had been silly enough to "TORMENT" them, like other young men, during the juvenility of his "early life." Your early life, Sir Benjamin!

"Angels and ministers of grace, defend us;
Be thou a spirit of health, or goblin damned?"

In 1834, when, by your own showing, you still continued thus to "torment" almost every poor creature who consulted you, whether for spinal or joint disease —you were already in your own and the world's opinion a great surgeon, and had been in practice nearly *thirty* years —in 1834 you had actually taken the last look of the sunny side of *fifty*—you were upwards of half a century old! That year, too, for your particular skill in spinal complaints, you were created a baronet! What a mistake! as we now learn from these "alterations and additions," every one of which you most conscientiously apprise us has been simply the result of your own "more enlarged experience;" carefully remembering, doubtless, Lord Bacon's advice, "Always when thou changest thine opinion or course, profess it plainly, and declare it openly, *together with the reasons that move thee to change*, and do not *steal* it."

"THE UNITY OF DISEASE" was on Sir Benjamin Brodie's table, but he had read it not—he had other avocations than to read "such stuff;" its contents he could only know from hearsay. That is why he had so long laughed at doctrines which he now looks upon as essentially his own. That is why he amputated limbs, and limbs which he now admits might have been saved by the more conservative medical treatment suggested to him by his "more enlarged experience!" And during the greater part of the time Sir B. Brodie was pursuing his destructive system—if we believe his own autobiograpy in the *Lancet*—he was actually making upwards of £10,000 a-year! Oh, most discriminating British public!

(To be continued.)

COMPARATIVE ANATOMY.

(Continued from page 296.)

MANY things are, indeed, at present inexplicable to us: thus, we cannot conceive to what purpose the long, slender and almost circular canine teeth of the upper jaw of the babyroussa are subservient; and the offices of many parts, even in the human body, are still hidden from us. But the ends or final purposes of the Creator will be placed in the strongest light by selecting any animal of marked peculiarity in its economy, and comparing together its structure and mode of life. Let a person who knows the natural history of the mole attentively contemplate its skeleton; if he should still withhold his belief in final purposes, he would probably coincide in opinion with a celebrated member of the French Academy of Sciences, who declared that it was as absurd to suppose the eye intended for seeing, as to imagine that stones were created for breaking heads.

I shall be contented with two other illustrations, which, although different from each other, are analogous in their purpose. The large cavities of birds and the interior of their bones are filled with air; thus they are rendered light and buoyant, capable of raising themselves into the higher regions of the atmosphere, of sustaining themselves with little effort in this rare medium, and of cleaving the air with wonderful celerity. HUMBOLDT saw the enormous vulture of the Andes, the majestic condor, dart suddenly from the bottoms of the deepest valleys to a considerable height above the summit of Chimboraço, where the barometer must have been lower than ten inches. He frequently observed it soaring at an elevation six times higher than that of the clouds in our atmosphere. This bird, which reaches the measure of fourteen feet with the wings extended, habitually prefers an elevation at which the mercury

of the barometer sinks to about sixteen inches.

The mammalia which live entirely or principally in the sea, as the whale kind, the walrus, the manati, and the seals, are rendered buoyant in this dense fluid by a thick stratum of fat laid over the whole body under the skin; from this, which is called blubber, the whale and seal oil is extracted. The object of this structure in lightening these huge creatures, and facilitating their motions, is obviously the same as that of the air-cells in birds in relation to the element they inhabit.

A scientific acquaintance with the animal kingdom is not only valuable in its immediate reference to zoology and physiology, but it aids other sciences, affording lights which are not merely useful, but absolutely indispensable, in examining and illustrating other departments of natural knowledge. An exemplification occurs in geology, or the science which treats of the physicial construction of our globe. Certain rocks and earthy strata contain vast numbers of shells, exuviæ of zoophytes, bones and teeth of large animals, besides other organic substances in a fossil state.

Considerable mountains and extensive districts are sometimes composed entirely of such animal remains. It is the business of the naturalist to compare these organic remains of a former world with the corresponding objects in the present order of things, to determine their resemblances or differences, whether they are of the same or of different species, or genera; to compare the productions of the different strata to each other, and to distinguish those which have belonged to fresh from those of salt water animals; and lastly, to ascertain whether the organic fossils of each country are like the living animals of the same, or of different and remote regions and climates. Such investigations require extensive and accurate information, an acquaintance both with the great outlines and minute details of nature, and belong, therefore, to an advanced stage of science. They have been commenced with zeal and industry by some of the greatest modern naturalists, and have led to highly interesting results. The bones of large quadrupeds, found in such numbers in almost all the countries of the old and new continent, have been discovered to belong to species, and even to genera, entirely new to us. One of these, an elephant, specifically distinguishable, both from that of Asia and Africa, has been met with in most parts of Europe, in countries and climates where no animal of the kind has ever been known in a living, natural state, and in which the known species, inhabitants of the torrid zone, would be speedily destroyed. The fossil shells differ more or less from those of living species. In many places several successions of fresh and salt water strata are discovered, indicating successive revolutions in the earth's surface, under the action of causes differing from each other in their nature. The inferior layers, or the first in order of time, contain the remains most widely different from the animals of the living creation; and, as we advance to the surface, there is a gradual approximation to our present species.

These examinations have furnished almost the only accurate data for any reasonable conclusions respecting the number, nature and progressive series of the changes which have affected the earth's surface, of the pre-adamitic revolutions of the globe, and they suggest matter for curious speculation respecing the extinct races of animals, and the mode in which their place has been supplied by the actual species of living beings. The writings of Cuvier, Brongniart, and Lamarck, in France, and of Mr. Parkinson, in this country, will give the best information on this kind of antiquarian research, on these authentic memorials of beings whose living existence must be carried beyond the reach of history and tradition, beyond even the fabulous and heroic ages, and has been supposed with considerable probability to be of older date than the formation of the human race.

Another important branch of the physical history of the globe belongs to zoology; I mean the nature, origin, and progress of the banks, reefs, and rocks of coral, and even the islands which are perpetually arising and accumulating in the intertropical seas. These vast masses of calcareous matter are aggregated by the slow but incessant operations of countless

millions of minute beings, so small and so simply organised, that they occupy the lowest rank of animal existence, and, indeed, have been recognised only in late times as falling within the boundaries of the animal kingdom. Their works commence in the fathomless depths of the ocean; they rise towards the surface, forming sunken rocks, dangerous and often fatal to navigators; they reach the level of the water, and then extend in length and breadth. When we see that banks are formed of miles in extent, that coasts are obstructed, harbours choked, and even new islands formed, the mind is confounded by the contrast between the insignificance of the agents and the magnitude of the result.

Other points of view, and other applications of zoology, will be disclosed as we proceed. More, perhaps, has been already said than was necessary to convince the enlightened that the living part of Nature's works is highly worthy of attention, and that this study, connected as it is with so many useful, interesting, and important departments of knowledge, must be deemed an essential branch of liberal education.

(To be continued.)

CHEMISTRY OF THE ANIMAL KINGDOM.

The cause of all disease is a defective or depraved state of the blood. The nature of this depravity can readily be ascertained, and to the intelligent mind can be most accurately accounted for by the state of the secretions, which act and re-act *ad infinitum* on the vital fluid. The practical agriculturist has gladly availed himself of the discoveries of science, but I am sorry to say that the great mass of medical practitioners profess to hold chemistry as applied to diagnosis in utter contempt. It is not difficult to account for this, when we reflect that the great majority have not learned medicine as a science, but as an empirical trade, and acknowledge no principles, but only rules derived from routine experience; the object of their inquiries has never been what is the cause of disease; but has almost invariably been limited to the question, whether a certain remedy in any given case had a good or bad effect. This is all the average of general practitioners care about; they very seldom inquire into the causes of what they observe; and yet these men declaim loudly against the countenance given by the people to quacks, while all the while they themselves have no just views of cause and effect, have no clear notion of the processes of digestion, assimilation and excretion, on the due performance of which the health depends; they have never thought it worth an hour's trouble to ascertain for themselves the nature of the secretions, or what constitutes the difference betwixt normal and abnormal secretions; they have never recognised the influence of these secretions on the general health, and are therefore entirely ignorant of the very essence of the healthy natural phenomena. It is astonishing to a man of reflection, that gentlemen in other respects rational and of average capacities will so perseveringly shut their eyes to the advantages they would derive from chemistry in the diagnosis of disease: it ought to be the foundation of medicine, and we cannot hope to give a scientific form and basis to this, the noblest of the arts, without a correct knowledge of the constituents of the secretions and of the nature and character of the assimilating and eliminating functions. Digestion, sanguification, nutrition, respiration and secretion, depend on certain changes in form and quality of the substances introduced from without into the system, or on certain liquid or solid constituents of the organism. These are perceptible to the senses, and it will be found impossible to study these processes profitably disunited from chemistry.

THE LIVER:

ITS STRUCTURE, FUNCTIONS AND DERANGEMENTS.

The liver is the largest gland in the body, occupying the whole of the right hypochondrium and a portion of the epigastric region, and extending downwards for a very short way below the margin of the ribs; it is convex on its upper surface, and concave on its under, and is divided into two lobes, a right and a left: on the concave surface, besides these there are two other lobes, the quadratus, and the lobe of Spigel, along with a fossa for the gall-bladder. The mass

of the liver consists of a parenchymatous structure, occupied throughout its whole extent by a network of capillary blood-vessels continuous in every direction throughout its whole substance; intersecting these capillaries are the canals in which the arteries and larger veins with their branches run. These larger vessels serve merely to convey the blood to and from the capillaries; it is the capillaries which immediately administer to the supply of bile. The gland is supplied by the hepatic artery with nourishing blood, and by the portal vein with venous blood, necessary for the formation of bile; this vein is formed by the concurrence of all the veins of the abdominal viscera, which aggregate and form a large trunk that enters the liver and divides after the manner of an artery. The bile is formed from venous blood alone; this venous blood is supplied primarily by the portal vein, and secondarily by the hepatic artery, inasmuch as the arterial blood brought by it, after having accomplished its especial duty of nutrition, becomes converted into venous blood and serves to secrete bile in its turn. The elements of bile are secreted from the blood by a host of nucleated cells, which occupy the interstices of the capillary network; on its formation the bile accumulates in the gall-bladder, and proceeds from thence as required into the duodenum or upper part of the bowel, where it is mixed with the food that has been converted in the stomach into chyme.

When the food enters the mouth, it is submitted to the mechanical process of division by the teeth, and during mastication it becomes intimately mixed with the saliva which prepares it for the process of digestion; after it is swallowed, it remains for a longer or shorter period in the stomach, where it is acted upon by that professional myth, the gastric juice, this gastric juice being nothing more than the exudation from the mucous surface, along with the saliva. However, it is converted in the stomach into chyme, and portions are successively passed into the duodenum, where they come into contact with the bile, when the chyme is converted into two parts, a nutritious called the chyle, and an innutritious named the residuum. The chyle is taken up by the lacteals and poured into the circulation, while the residuum is expelled from the bowels as excrement. Besides thus forming bile, the liver also acts as a purifier of the blood, by separating from it its worn-out elements, and intercepting foreign and detrimental matters. As the blood from the stomach and intestines proceeds directly through the liver before mixing with the general circulation, this fully accounts for many of the disorders of the liver with which we are familiar, and it will also explain why the drinking of spirits in the concentrated form of drams should be so much more prejudicial than when diluted. The blood, besides being thus purified, has in the liver a saccharine element added, which is afterwards burnt off in the lung during the process of respiration.

That the liver acts as a purifier of the circulation was most distinctly and satisfactorily shown by the late poisoning case at Croydon, where, under the able analysis of Professor Taylor of Guy's Hospital, not a trace of poisonous mineral could be found either in the stomach or intestines, or their contents; and yet the liver was found to contain arsenic in large quantity, having been carried and deposited there after being absorbed into the circulation. The poison having been taken by the suicide in small doses at different times in her food, caused for several days vomiting and purging. On account of the length of time the symptoms lasted, before death, the precautions used were well calculated to deceive the medical men in attendance; the poison having been all discharged by means of this vomiting and purging. With the exception of the fatal amount absorbed into the circulation, and arrested in the liver, no traces of mineral poison could be found either in the stomach or bowels, and had the liver not been examined, there cannot be a doubt but the cause of death would have remained in obscurity.

(To be continued.)

CRUELTY TO DUMB ANIMALS.—Cruelty to dumb animals is one of the distinguishing vices of the lowest and basest of the people. Wherever it is found, it is a certain mark of ignorance and meanness; an intrinsic mark, which all the external advantages of wealth, splendour, and nobility cannot obliterate. It will consist neither with true learning nor true civility; and religion disclaims and detests it as an insult upon the majesty and the goodness of God.

NOTICES.

The number of pamphlets disposed of since our last is as follows:

Mr. W. B. Ford, High Holborn	520
Mr. John Lacey, Shrewsbury	208
Mr. W. Brown, Aldborough	104
Mr. W. Richardson, Durham	104
Reported in last number	3,773
	4,709

Postoffice orders have been received from T. W. Stowell, Brighton; J. E. Hardwicke, Bury St. Edmund's; J. Lloyd, Stockport; F. W. Crick, Bedford.

The Committee will thank the members to make the orders payable to JOHN STEPHENS, *Shadwell* Postoffice, at their earliest convenience.

The Committee are making arrangements for the next 5000.

Dr. COFFIN will deliver a lecture on "The History, Character and Manners of the North-American Indians," at the St. Bartholomew's Working Men's Literary Institute, Gray's Inn Road, on Tuesday evening, the 6th of July. Our friends who wish to hear again the above interesting Lecture will not fail to avail themselves of the present opportunity.

Dr. COFFIN may be consulted gratis, as usual, every Saturday evening, from four to eight o'clock, at the Botanic Establishment, No. 24, Union-street, East, Spitalfields. *Patients not admitted to the waiting-room after eight o'clock.*

Dr. COFFIN may also be consulted at his residence, 24, Montague Place, Russell-square, daily *(Sundays excepted)*, from one to two o clock (fee one guinea), on any day except Monday, on which day the fee will be five shillings only.

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In No. 255 of our Journal, an advertisement of Mr. Brockies appeared, announcing his being the only Accredited and Authorised Agent for East and West Hartlepool. Our Editor, not knowing that

CAPTAIN JOHN NAYLER,

of St. Hilda-street, Old Hartlepool, was Accepted Agent for West Hartlepool, allowed its insertion. Captain John Nayler not only was our Agent in 1850, but also is our Accredited Agent for West Hartlepool, who continues to dispense all the Herbs, Roots, Barks, Powders, &c., used in Dr. COFFIN'S Medico-Botanic System of Medicine, of whom also may be obtained all Dr. COFFIN'S Medico-Botanic Works.

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"Human experience, which is constantly contradicting theory, is the great test of truth."—Dr. Johnson.

No. 265—Vol. VIII. SATURDAY, JULY 10, 1858. Price 1d.

THE GLEANER, No. 11.

DISTINCTIONS BETWEEN MAN AND ANIMALS; OR, SPECIFIC CHARACTERS OF MAN.

In the external conformation of man, we immediately remark his upright stature; that majestic attitude, which announces his superiority over all the other inhabitants of the globe. He is the only being adapted by his organisation to go erect. Enslaved to their senses, and partaking merely of physical enjoyments, other animals have their heads directed towards the earth.

Man, whose more elevated nature is connected to surrounding objects by moral relations, who can pursue the concatenations of causes and effects, and embrace in his mind the system of the universe, boldly regards the heavens, and can direct his sight even into the starry regions.

I propose to prove that the erect stature is suited to the organisation of the human subject; and that it is exclusively peculiar to man. It might appear a sufficient proof of the upright attitude and biped progression being natural to our species, that such has been the invariable practice of all nations in all ages of the world; that no people, no tribe, nor even any individual in a healthy condition, has been known to do otherwise. Yet, even this has been contested; and as philosophers have not been wanting to argue that we e naturally furnished with tails, but by some strange change or chance had got rid of the degrading appendage, so others have held that we were designed by nature to go on all fours. The chief support of this notion concerning the human subject being naturally quadruped has been derived from the examples of *wild men;* that is, children lost in the woods, and growing up in a solitary state.

Now, how are we to consider these wild men? In different countries of Europe a few individuals—and very few indeed are authentically recorded—have been met with in a solitary state; young persons wandering alone in the woods, or mountainous regions. To unsophisticated common sense, they appear poor, half-witted, stupid beings, incapable of speech, with faculties very imperfectly developed, and therefore probably escaping from or abandoned by their parents or friends.

If the erect attitude and biped progression be peculiar to man, the structure of the lower limbs which support his trunk, and of their muscles which move it, must exhibit characters of form, size and arrangement, which are met with in no other animals. The influence of this peculiarity will not be confined to the lower limbs; it will also modify the pelvis, which is the basis of the trunk; receiving above the weight of the abdominal viscera, the thorax, upper limbs and head, transmitting this weight to the lower limbs and offering fixed points for their motions; the upper limbs which are not employed for support, but merely as instruments of prehension; the thorax by which these are separated and on which they rest, and the junction of the head with the vertebral column, on which the due support of this weighty mass and the proper direction of the eyes, mouth,

and face depend. The length and strength of the lower limbs, the great instruments of support and progression, are very striking and quite peculiar to man. They are equal in length to the trunk and head together, which is not the case in any other animal, excepting the kangaroo, jerboa, &c, where the principles of construction, and the offices of these parts, are quite different from the human.

In all the monkey tribe, they fall very far short of this proportion: even in the orang-utang and chimpansé they are short and weak, and manifestly inadequate to sustain the body erect. This circumstance alone effectually disqualifies the most manlike monkey from participating with man in that grand attribute, and would of itself be a sufficient ground for specific distinction between the two beings. If the lower limbs of monkeys are weak in comparison with the human, those of other animals, and particularly of true quadrupeds, are much more so; the short thigh-bone is almost concealed by the muscles of the body, and the rest of the limb is slender and not covered by any great muscular masses.

The disproportion in the respective lengths of our upper and lower limbs clearly points out the different offices they are destined to execute. The superior length and power of the latter, so necessary for the various purposes connected with our erect attitude, make us altogether unfit for going on all fours, as will immediately be shewn by a trial. In such an experiment, either the lower limbs must be thrown obliquely backward, or the articulations held in a bent and very insecure position. Even children, before they can walk, in whom the lower limbs are comparatively shorter than in adults, crawl upon their knees, or else drag the lower extremities after them on the ground.

To the long and powerful femur, to the strong tibia, to the broad articular surfaces which join these at the knee, no parallel can be met with in any animal.

134, *High Holborn*.

Actions speak more forcibly than words; they are the test of character. Like fruit upon the tree, they show the nature of the man; while motives, like the sap, are hidden from our view.

FACTS FOR FAMILIES.

From the "Destructive Art of Healing."

(*Continued from page* 308.)

I HAVE elsewhere pointed out some errors—grave errors—in Sir Benjamin Brodie's *present* practice. Considering the late age at which the eminent baronet adopted his "alterations and additions," it would have been too much to expect that his novel practice could admit of the perfection it might have reached, had he really commenced it in his "early life." In that case he could scarcely have advised us, as he does in his "edition" of 1850, to confine certain patients to the horizontal posture for the long space of "two or three years," and keep them all that time on one remedy—iron! Imprisonment to the couch and a course of iron for two or three years! That error, at least, we may safely expect Sir B. Brodie to rectify with a little more of his own "more enlarged experience."

Having allowed "Her Majesty's Serjeant *Surgeon*" to account for his change of practice and opinion in his own way, I must now spare a little room for the recantations of certain equally eminent *physicians*. Very different have been the reasons given by Professor Alison, of Edinburgh, for *his* adoption of a new course. With Dr. Copland, Dr. Watson, and other English physicians of mark, Professor Alison ascribes *his* change of practice to "a change in the TYPE of disease." According to these gentlemen, human nature has completely altered within the memory of the present generation; nay, within the last ten or twelve summers it is not what it was—why or wherefore, no two of these great doctors can agree. By one very distinguished physician we are called to believe that the "malaria from the wood pavement has caused all diseases to assume an *intermittent* type." Another will have it that the gradual substitution of "tea and potatoes" for ale and animal food in the diet of the people, has very sensibly "mitigated the ferocity" of all complaints. Indeed, certain gentlemen, with the eminent Dr. Alison at their head, assure us that the diseases even of horses, asses, and horned cattle, have also, all within the present generation, been

materially changed. By "tea and potatoes?" No; but "somehow or other." Many doctors, nevertheless, declare with Dr. Watson, that the human constitution has been certainly altered since the cholera came to England in 1832. According to these last, the cholera has not only altered the constitutions of those it attacked, but it has, "somehow or other," completely changed the constitutions of those it never attacked at all! But whatever be the true theory of the cause of this "change of type," nothing is more certain than that the people of these degenerate times "cannot bear depletion as they formerly did;" for that fever, small-pox, chicken-pox, and the like, are no longer the inflammatory" complaints they used to be. Even epilepsy, palsy, and apoplexy—according to Dr. Marshall Hall, Dr. Radcliffe, and other very original gentlemen—must no longer be treated "antiphlogistically." These diseases, now-a-days, being all, like the ague, more or less periodic and intermittent, can only be cured by "quinine," "iron," and other febrifuge remedies. So changed, in a word, has become the type of all diseases, the most sanguinary surgeons — Mr. Guthrie, perhaps, excepted—can by no possibility adopt the lowering measures they practised within the last dozen years in cases of accident; broken heads and broken bones, for example, not in these islands only, but throughout all the civilised world!

People of England, is this the truth? Is this the honest belief of men in whom you have so long confided as examples of probity and honour? Or, is this assumption of a change in the type of disease a mere shallow artifice on the part of solemn impostors, who wish to rob the discoverer of his reward, and filch from him the profits of a conservative practice they themselves have for years vilified and denied? *Can* the type of disease change? Is such a change probable, or even possible? Every known fact in creation answers, "*Forms* may change; *types* are immutable!"

Let us consider the functions of a healthy human body as they are, were, and, till this globe shall come to an end, must, in the very nature of things, continue to be!

In the first place, then, a healthy man will be found to be a *regular* man; in every act of his life you will find him keeping time almost like the clock. Such a man scarcely requires a watch to tell him when to rise or when to go to bed, when to work or when to play. Even in his interior economy every organ and atom preserve a regular rhythm in all their movements. The beat of his heart and the play of his lungs, on all but extraordinary occasions, keep an all but musical time; his corporeal income and expenditure very periodically balance each other. From the cradle to the grave, his life, his whole life, is little more than a mere series of periodic repetitive acts. Thus, a healthy man may be said to be a walking chronometer; while, in so far as heat and cold are concerned, he requires no thermometer to regulate his temperature. It is the sick only who trouble themselves much about their feelings in either respect. In all seasons these complain periodically of "chills" and "heats." *Chrono*-metrically and *thermo*-metrically the healthy man is all right. In him we behold an epitome or embodiment of every great system in nature. The entire system of his frame, like the entire frame-work of creation, is a veritable chrono-thermal system. In this, at least, there is no mistake; there can be no quackery here; for the man who comes up to *time* (chronos) in all the acts of life, and who, during every season of the year, preserves throughout his body a sense of equable *temperature* (therma), requires no doctor to regulate what already is regular in all its actions. Attention to time and attention to temperature must, therefore, be the object and aim of all rational medicine when such a man becomes sick, call his disorder by what name we please. Can such a system of medicine be learnt by the anatomist in the dissecting-room? or by the mere chemist in his laboratory? No! It is to the living brain and nerves—to the *cerebro-nervous* system—that source of all motion and emotion, the practitioner who would regulate either the temperature or the time of the disordered living man must direct his chief attention. The physicians of India and China, who never open a dead body, and who know nothing of chemistry, at this very hour practise

medicine with a success that might greatly astonish some of the most accomplished anatomical and chemical professors of this country.

In all places, simples have preceded science in the practice of the healing art. By very simple means, for example, a Peruvian peasant accidentally cured himself of a disease, to the reiterated paroxysms of which, in defiance of the best medical advice of this country, the stalwart Cromwell was forced to succumb. Before the introduction of the Peruvian bark by the Jesuits, thousands of our countrymen annually perished by Cromwell's disease—the ague—fell victims, in a word, to the physician's ignorance of the very nature of intermittent fever. The rapidity even with which the bark can in most cases put an end to the paroxysms of that complaint, instead of being a recommendation, in the first instance greatly retarded the success of the new remedy with the majority of the profession, who were paid for *time* instead of *talent*, naturally opposed it with all the vehemence of bigotry, and all the virulence of self-interest. The London physicians, with their associated satellites the apothecaries, and their hirelings the nurse-tenders, then as now all acting in the closest collusion, were not ashamed secretly to whisper away the characters of such of their brethren as dared to adopt it in practice. And what could be easier? *Les absents ont toujours tort*—a truth I have had amply verified in my own person! A generation of doctors had to pass away before the Jesuits' bark—that "invention of the devil"—fully established itself as a cure for intermittent fever. But with all their science, and with all their search, the professors of Europe had never been able to explain how a disorder involving—as the ague confessedly does involve—*every organ and atom* of the body, should yield to a vegetable principle, at first sight so apparently powerless and inert. Nor did their discovery even of the active element of the bark, *quinine*, enable them to give anything like a satisfactory explanation either of the mode of action of the remedy, or the nature of the disease which it cured. It was reserved for the present writer to explain both. In the phenomena of the ague-fit—in the paroxysms of intermittent fever, I discovered not only the *type* of all fitful complaints, but the type of every other known *form* of disease; while in the electrical action of the Peruvian bark on the *brain and nervous system*, in the cure of that particular convulsion, I found a key to the true mode of action of all remedial means.

(To be continued.)

THE RURAL STROLL.

(Continued from page 292.)

"A THING of beauty is a joy for ever!" and what can minister more to the purer joys of our intellectual nature than the floral kingdom? July approaches crowned with the richest garland of the year. O'er field, o'er hill, o'er river, in valley, wood, and glen, on heath, moss, and moorland, Nature's beauties flourish: even the seashore claims our attention: here we find flowers. The sandy downs and rocky crevices present us with the thrift or seapink (*armeria maritima*). The sea-lavenders, the samphire, the wild celery, all claim a glance. A scarcely recognisable *umbelliferous* plant possibly will meet your view, the *eryngium*, or sea-holly, growing amid the sand with its compact heads of beautiful blue flowers. The pretty yellow-horned poppy (*glauceum hileum*) cannot escape your notice. The almost bushy-growing *cakill maritima*, or sea-rocket, with its pinkish-white flowers. The *cochlearia maritima*, or scurvy-grass, a near relative to the horse-radish, of roast beef notoriety, with many others that will repay even wet feet to obtain. We cannot but notice the grasses, for that would be unpardonable, considering what amount of obligation we owe them; for, were this family extinct, what would become of us? One yields the staff of life, the glorious wheat; another indispensable for the noble horse, the oat; the barley for the fowls; and all the other species made into hay for all our graminivorous, ruminating animals. Very many are very elegant, and graceful in their forms—instance the graceful droop of the oat, brome-grasses, and wood melicas. What prettier than the silky lustre of some of the smaller *avenas* or oat-grasses? What more slenderly delicate than the *airas*, or hair-

grasses? Having thus shortly vindicated the character of the lowly grasses, and shown their great value, we turn once more to the drier ground; and peradventure, in getting over the hedge, prick our fingers with the brambles, genus *rubus*. Taking this hint to examine them, which we do cautiously, we find them to be rosaceous plants, the flowers of which Ebenezer Elliot, the Corn-law Rhymer, calls "small white rose." Brambles and prickles are usually associated, but there is a little Alpine native which in autumn offers its large, well-flavoured, orange-red berry without a thorn, and which this month ornaments the damp patches of some of the northern moorlands with its large white flowers; each little plant, about eight inches high, bearing but one flower and one berry. Another mountain bramble, the *rubus saxatilis*, flourishes, as its name implies, in stony places: it has creeping stems, and its flowers are small and inconspicuous.

In thus blending our descriptions of the beautiful, the useful, the sweet, we must not lose sight of those floral gifts more immediately connected with the object of our Journal, and in our stroll forget our inestimable medical plants so bountifully presented to our notice at this auspicious time. It matters not which we take first; therefore, we will begin with the golden-headed agrimony, with its firm, upright stem, growing from its perennial root: its qualities are astringent and diuretic, and it exercises much control over the liver: it is also much cultivated in gardens. The *arbutus uva ursi* claims our regard, with its beautiful umbelliferous flowers, an excellent herb for diarrhœa, dysentery, &c. In fact, so many are now crowding upon us this month, that our space will not allow us to expatiate further; therefore, we must leave them till next number, when our ramble will be wholly devoted to them.

(To be continued.)

EXTRAORDINARY CURE.

TO MR. MARSH, BOTANIC PRACTITIONER, BOXFORD, AGENT TO DR. COFFIN.

DEAR SIR,—Impelled by a sense of gratitude for the benefit my daughter has received since I placed her under your treatment, I feel called upon to express my appreciation of the skill and kindness you have manifested in the management of her case (it was almost a miracle), and, as an encouragement for you to persevere in your efforts to do good, in spite of all the opposition which professional jealousy may create against you, as well as to induce others who may be afflicted to place themselves uuder your treatment, I wish you to make such use of this communication as may be deemed desirable. In October, 1852, my child was taken with a severe pain in her head, which continued three or four days, depriving her of the use of her head and neck. I called in one of the most eminent of the faculty, who attended her more than 12 months, but she received no benefit; afterwards the head physician of Colchester and one from the metropolis examined her. They said it was a most extraordinary case—was incurable, and nothing more could be done for her. All hopes had then fled of my child ever being restored to health. After remaining in this state five years, unable once to move her head, I heard of you as a Botanic Practitioner, and secured your services, in her case. To my astonishment, and the joy of my heart, in less than four months my child said, "Father, I can move my head;" and in three weeks she could walk, and is now in good health. In conclusion, I hope you may be spared many years to dispense your health-restoring medicine for the cure of the afflicted portion of the human family; and with good wishes for your success and welfare, I beg to subscribe myself, with much esteem, yours

HENRY EVERETT,

June 10, 1858. Builder, Colchester.

Attested by the Rev. F. Collins; Samuel Chisnell, seedsman; C. Spurgeon, Post-office; James Waterman, bootmaker; Charles Barnes, plumber; Abraham Wright, baker; Wm. Warren, bootmanufacturer, all of Colchester.

The above case is not one among the few, but one among the not only many, but many thousands, that come under our notice, proving the capability of our agents, our quacking, our empirical agents, as they are styled by the failing-to-cure, regular practitioners. This indubitably proves the simplicity and efficacy of Dr.

Coffin's Medico-Botanical system, in the hands of the undiplomatised; it also proves that, if our agents are not qualified by law, they are qualified by study and experience, to take the management of the sick, and do most triumphantly bring them through all their sorrows, and needing neither wood nor mould to cover their faults; which, alas! is too general with allopathic treatment. Thus it is not necessary for a man to be born in a vat to become a brewer; neither does a diploma alone qualify a man to practise physic and surgery.

PICTORIAL ILLUSTRATIONS OF MEDICAL BOTANY.

We commence our new series with

CENTAURY.—(Chironia Centaurium.)

Description.—Centaury is an annual, has generally but one round stalk, from twelve to twenty inches high, and branching at the top into many sprigs. The leaves are small and somewhat round; the flowers stand at the top in one umbel or tuft, are of a pale red tending to carnation, and consisting of five or sometimes six leaves.

Place.—Fields, pastures and woods.

Time.—It flowers in July and August, and seed within a month after.

Qualities.—This plant is an excellent tonic and general corrector of the bile. It exerts a powerful influence over the liver; hence, it is good for the jaundice and all diseases of the kidneys; for weak and debilitated patients it is an invaluable tonic. A strong tea is good in cases of scrofula, or for the removal of ulcers of long standing, as also for green and fresh wounds. In short it is a plant of rare virtues.

COMPARATIVE ANATOMY.

(Continued from page 310.)

To those considerations which recommend zoology, not only as a highly interesting but essential branch of general knowledge, many others may be added, enforcing the cultivation of comparative anatomy and physiology, more particularly on those who devote themselves to the improvement of medicine. The basis of our physiological principles is rendered broader and deeper, in proportion as our survey of living beings is more extensive. The varieties of organisation supply, in the investigation of each function, the most important aids of analogy, comparison, contrast and various combination; and the nature of the process receives at each step fresh elucidation. Those enlarged views which unfold to us the natural play of the animal mechanism, are our surest guide in the study of its deranged motions, an essential criterion for estimating the nature and degree of the deviation, and an important indication of the means by which it may be corrected. Thus, general anatomy and physiology furnish the principles by which we are guided in our attempts to preserve health, to alleviate and remove disorder, and cure disease.

On such researches and such studies, on a foundation no less extensive than the whole empire of living nature, the science of medicine must be established; if, indeed, it be destined to occupy the rank of a science; if its practical precepts, its curative efforts, and its technical proceedings, be grounded in and derived from a knowledge of the corporeal mechanism and a contemplation of its mode of action, from observations of its deranged state and of the course and order by which the return to health may be safely accomplished; if, in short, it shall be permanently raised above its deplorable condition of servile submission to the dogmas of schools and sects, or subjection to doctrines, parties, or authorities. I appeal to the justly celebrated John Hunter, to his labours and writings; to that change in the state of surgery which his exertions and his example have accomplished. Such achievements by a single hand hold out to us the brightest prospects, and most encouraging anticipations of the ample harvest awaiting the united efforts of more numerous cultivators. From this quarter we must expect the future improvement of our profession; not from the addition of new medicines to a catalogue already too long; not from fresh accessions to that mass of clinical observations which *lie unread* on the shelves of our medical libraries.

In investigating the nature of living beings, various objects of inquiry present themselves, and various modes of pro-

CENTAURY.

ceeding may be adopted. We may examine their structure; the number, form, size, relative position, and connexion of the organs by the assemblage of which they are constructed; their texture (that is, the primary animal tissues, which compose the various organs) and their mode of union; their elementary composition, or the number, nature and combinations of the elements into which they can be resolved. In impressing upon your minds the close connexion of anatomy and physiology, I do not mean to represent to you that the former teaches the latter.

Strictly speaking, structure alone is learned by dissection; the vital properties of organic textures, and the functions of organs, are found out by observation. We have the most perfect anatomical knowledge of the spleen, thymus and thyroid gland; but their offices in the animal are wholly unknown. What organ has been more carefully dissected than the brain? yet, the respective offices of its various portions have not been discovered.

Anatomy, however, unfolds facts of which the knowledge is absolutely necessary in appreciating the results of observation. It affords the only clew capable of guiding us through the multiplied and various movements, all going on together in the living microcosm, and of thus enabling us to discriminate the proper share of each organic apparatus. What kind of knowledge could the most patient and acute observer gain of the circulation, if he knew nothing about the structure of the heart, lungs, arteries, and veins? what insight could he acquire into the changes of the food, and the nutrition of our bodies, if the alimentary canal, with its divisions and appendages, and the absorbing vessels, were unknown to him? Just notions of the seat and nature of diseases, and of the operation of remedies, would be out of the question; but what chance has a person, ignorant of the general construction of our frame, of escaping from the most absurd doctrines and systems, and from the most pernicious practical errors.

Anatomy, again, clears up doubtful points, and suggests topics of inquiry; it is a test and criterion of physiological explanations. If the latter are inconsistent with the anatomical facts, they must be rejected. That its aid is essential to physiology, may be proved by referring to what even the most acute men have written about the animal economy, before anatomy had been cultivated. It is a mass of error and fiction, without the smallest pretence to the title of physiology.

Anatomy and physiology are the groundwork of pathology, or the science of disease. Disease is a relative term, implying a comparison with a state of health, and presupposing a knowledge of that state. To anatomy, or science of healthy structure, is opposed morbid anatomy, or science of diseased structure; to physiology, or doctrine of healthy functions, pathology, or doctrine of diseased manifestations.

Morbid anatomy shows us the diseases; pathology their external signs or symptoms. Often no change of structure is observable, the deviations from the healthy condition eluding our means of inquiry. The organ is said to be functionally disordered. Thus we find that anatomy, physiology, morbid anatomy, and pathology, are mutually related and intimately connected. Although called separate sciences, they are, in truth, parts of one system, and we must never lose sight of their mutual bearings. On the foundation of these four departments of knowledge or science, is raised the practice of medicine or the healing art; overlooking the artificial distinctions of physic, surgery, and so forth.

But is all this knowledge necessary for a practitioner? Is it required that a physician or a surgeon should know anatomy, natural and morbid, physiology, pathology? To the science of medicine, and to its rational improvement and extension, it is necessary; but by no means so to the mere routine of practice, and the very successful routine of trade. Perhaps, indeed, a firm faith in drugs and plasters, and a liberal administration of them may be the surer road to popular success.

A common sailor uses his glass without knowing the laws of optics, or even suspecting their existence. But would Galileo have invented the telescope and have given to mankind the power of

penetrating into space, if he had been equally ignorant—if he had been unacquainted with the action of various media, and of variously shaped surfaces on the rays of light?

An ordinary workman of education and habits purely mechanical, constructs the most powerful astronomical instruments; but it belongs only to a Herschel or a Laplace to improve these means, and to employ them so as to unfold the structure of the universe, and expound the laws which govern the motions of the heavenly bodies.

Mr. Hunter was the first in this country who investigated disease in a strictly philosophic method, bringing to bear on it the clear and steady lights of anatomy and physiology. He began by discarding all the doctrines of the schools, and resorted at once to nature. Instead of creeping timidly along the coast of truth, within sight of precedent and authority, he boldly lanched into the great ocean of discovery, steering by the polar star of observation, and trusting to the guidance of his own genius.

His claim to the gratitude of English surgeons will be sufficiently established by comparing surgical science before his time with its present state; and by contrasting, at the two periods, the relative rank of surgeons in public estimation. I, therefore, earnestly entreat you to bear this in mind, and to remember that the true dignity of the profession, in which every individual member is a sharer, will be best promoted, not by partial privileges and arbitrary exclusions, not by anything which royal charters or legal enactments can bestow or withhold, but by that scientific cultivation and honourable practice which constitute the only just claim to public esteem and confidence.

A REVIEW OF THE OLD SCHOOL PRACTICE OF PHYSIC.

BY J. NADEN, SHEFFIELD.

THERE is nothing that has contributed more to our present physical deterioration than the old-school practice of medicine. When a person begins and continues to take the poisonous compounds of the faculty, his health is soon impaired, and an injury is inflicted upon his constitution. Should he, under these circumstances, become the father of a family, he transmits to his children more or less of his infirmities; consequently, they innocently become the victims of early disease, having no hope of a termination of their sufferings but in death. Our modes of living have also done much to render us weak and puny; but a more fruitful source of mischief is found in blood-letting, which has been so ably exposed by Dr. COFFIN. This awful malpractice, in conjunction with the free use of mineral and vegetable poisons, has done incalculable harm to society. Dr. Rush states, in reference to allopathic practice, "We have assisted in multiplying diseases; we have done more, we have increased their mortality." This is a truth, indeed, that we have learned to our sorrow by the many victims that have fallen a sacrifice to their mistaken practice. Though Dr. Rush was an advocate of the heroic practice of physic, he had, nevertheless, sagacity enough to discover that it was founded on erroneous principles. There are many facts which prove that diseases are increased by the use of poisons. Montaigne relates that a party had the patronage of a benefice at the foot of one of the mountains of Gascony, where the inhabitants, "lived after a manner of their own, and were governed by certain laws and regulations, which had descended from father to son, and which they consented to obey; they had no lawyers, judges, doctors or beggars; neither were they obliged to call in a stranger to settle their disputes. They avoided all connexion with other parts of France, in order to keep their minds in the utmost state of purity. At length, however, a physician married a young woman of their village, lived among them, and began to teach them that there were such things as fevers, rheums, imposthumes; and instead of garlic, with which they had been accustomed to cure all the diseases to which they were subject, however violent and dangerous, he ordered them, for a cough or for indigestion, some strange foreign mixtures, and began to make a trade, not only of their health, but their lives. Prior to this time they never observed that being out at night in the dew gave them the headache; that it

was unwholesome to eat anything warm, or that the winds of autumn were more deleterious than those of the spring; but after making use of the medicines introduced by him, they were beset by a whole legion of diseases to which they had never been accustomed: they not only perceived a general falling off of their former vigour, but they discovered, also, that life was shortened at least one half." A valuable lesson might be learned from this anecdote, for people rarely reflect that diseases are often occasioned by following the advice of their physicians; for a single dose of any poisonous substance will sometimes lay the foundation of an obstinate and dangerous disease.

A medical man, residing on the borders of Delaware, in the United States, used to recommend to the people in his vicinity to take one or two calomel powders as the autumn approached, to guard against bilious attacks and keep the liver healthy. Many followed his advice; the consequence was, they were more sickly than their neighbours, and the medical man drove a roaring trade, his patients little suspecting that he had been making a trade (as Montaigne expresses it) of their health and lives. Sir Walter Scott observes of Napoleon the First, that he never obeyed the medical injunctions of his physician, Dr. O'Meara; he obstinately refused to take medicine, even when it was supposed his disease would prove mortal, and answered the reasonings of his medical attendant thus:— "Doctor, no physicking. We are, as I have before told you, a machine made to live; we are organised for that purpose, and such is our nature. Do not counteract the living principle; let it alone; leave it the liberty of defending itself; it will do better than your drugs. The watchmaker cannot open it, and must, on handling it, grope his way blindfolded and at random. For once that he assists and relieves it with crooked instruments he injures it ten times, and at last destroys it." Napoleon was a shrewd observer, and if he had been a physician instead of a warrior, he would, no doubt, have introduced many salutary reforms. This single assertion ought to be printed in gold:— "Do not counteract the living principle." This speaks a volume of itself. He was convinced that poisonous or deleterious substances have no other effect than to derange and impair the constitution.

Thomas Jefferson, the great statesman and philosopher, does not speak of the practice of medicine in terms of favour or even respect. "From the scanty field of what is known (says he) the adventurous physician lanches into the boundless regions of what is unknown. I have lived to see the disciples of Hoffman, Boerhaave, Stahl, Cullen, Brown, &c., succeed each other, like the shifting figures of the magic lantern, and their fancies, like the dresses of the doll-babies from Paris, becoming, from their novelty, the vogue of the day, and yielding to the next novelty their ephemeral favours. The patient, treated by the fashionable theory, sometimes recovers in spite of the medicine. The doctor thinks he restores him, and gains new courage to proceed in his bold experiments on the lives of his fellow creatures." In another paragraph Mr. Jefferson remarks, "I wish to see an abandonment of hypotheses for sober facts. I am desirous of seeing the first degree of value set on chemical observations and the lowest on visionary theories, and to those expressions from so great a man, every true Medical Botanist can say, Amen. No man is more esteemed than the French medical philosopher, Majendie, and no one has been more severe in his denunciations of the profession to which he is attached both by interest and inclination. In his lectures on the blood, 1837-8, he applied the lash of censure with an unsparing hand. He says, "Medical men may be divided into two classes: the first give up all study the moment they leave off attending the lectures; they quite conscientiously believe, and frequently succeed in persuading others, that they understand every disease, and can cure every variety of suffering; these gentry often realise a handsome fortune, but I must say, they do it at the expense of science and of the interests of their fellow men. The second class of practitioners continue, it is true, to follow chemical pursuits with zeal; but some among them, misled by scholastic errors, retard rather than accelerate the progress of the science." Here is a man at the head of the profession to which he

belongs, who gives it as his opinion, that the more scholastic education a man possesses, the less fitted is he for the curing of disease. What will those say that clamour against the Coffinites, because they profess to cure all curable diseases, not having passed through the regular routine of medical education, after the opinions given by a Majendie? But he says more: "So great is our ignorance of the real nature of the physiological disorders called diseases, that it would perhaps be better to do nothing and resign the complaint we are called on to treat to the resources of Nature, than to act as we are frequently compelled to do, without knowing the why and the wherefore of our conduct, and at the obvious risk of hastening the end of our patient." With regard to the practice of medicine, he observes, "The physician mixes, combines, jumbles together vegetable, mineral and animal substances, administers them right or wrong, without considering for a moment the cause of the disease, and without a single idea as to his conduct. You may prove to him as you will, that this or that substance is insignificant, useless, or even hurtful; little will he regard your expostulations." It does not require a man to be versed in Latin to be a successful practitioner, and the science we cultivate will, he trusts, cease to be ranked with such performances, for the language of the schools is loaded with false and grotesque comparisons, for he cares little for the learned prescriptions in which the majority of practitioners delight; the mysterious dignity of their composition always seems to him calculated to throw dust or chaff in the eyes of the vulgar, and rather to enhance the merit of the physician than the recovery of the patient. Dr. Brown, another great luminary of the medical school, says, he "spent more than twenty years of his life in learning, scrutinising every part of medicine; the first five years passed away in hearing others studying what he had heard, implicitly believing it, and entering upon the profession as a rich and valuable inheritance; his next five years was to explain more clearly the several particulars, to refine and give them a new polish; by the expiration of another five years he became cold and indifferent to studies; he began with other eminent medical men to look upon the healing art as altogether uncertain and incomprehensible. All this time," says he, "passed away without the acquisition of anything valuable in the healing art, and it was not until between the fifteenth and twentieth year of his studies, that a slight gleam of light broke upon him, that he must give up the logic of his philosophy, that he must forget all his reading, all his learning, and burn, as Paracelsus did, all the famous books that came in his way; he must shut and seal each of them with seven seals, till he saw what he could make out of his own thoughts." And how many, like Brown, who built up theories which, to his mind, were destined to revolutionise the whole science of medical jurisprudence, and when about realising his object, eluded his grasp, and why? because his doctrines were not based upon the unerring laws of nature. Dr. Chapman, professor of medicine, of Pennsylvania, speaking on the form of dyspepsia, or indigestion, says, "Tampering with medicines (meaning of course poisons), is very detrimental: every ache or discomfort, real or imaginary, must be relieved by a recurrence to some supposed remedy, till finally the powers of the stomach are worn out, and derangements, either functional or structural, take place." It would be salutary were such people to bear in mind the epitaph of the Italian count who fell a victim to this habit:

> I was well; wished to be better; took physic and died.

And have not the professors themselves to be blamed for such a state of things; groping in the dark, pouring down drugs empirically, until the stomach gives way by the effects of blue pill, by which a case is made of greater complexity and of enhanced difficulty to cure. The Emperor Hadrian deliberately prepared this inscription for his tomb:

> It was the multitude of physicians that killed the Emperor.

To Dr. Broussais are we indebted for the murderous doctrine of depletion. As a specimen of the Broussian practice, the following is quoted from M. Barras by Rebere. A man, twenty-seven years old, had been for a long time troubled with

indigestion. Having a recent attack of the complaint, but without fever or vomiting, and his appetite being tolerably good, he applied to one of the disciples of Broussais for advice. Ninety-six leeches were applied at different times over the region of the stomach, and the patient was put on a course of gum water lavements and starvation. After fifty-five days of this treatment the attending practitioner was taken ill, and M. Barras was called to take his place. He describes the condition of the patient in the following language: "He appeared like a man on the point of dying from hunger. Emaciation had arrived at the last degree of marasmus, and the debility was so great, that the patient could not raise himself from the bed, and his tongue was moist throughout, white in the middle, red at the sides and extremity; face pale, disgust for drink, vomiting for some days past, had some desire for solid food; the pulse was weak, skin cold, urine copious, and stools scanty." Such is the result, and such is the doctrine, to which a large class of medical men pin their faith. "Starve the patient, and the disease will be starved." We, the Medical Botanists say, assist nature by botanic practice, and the disease will be cured.

(To be continued.)

SOUND.

We will now expatiate on the effect of sound through the mind on the nervous system. The enchanting and powerful influence which often, in youth, develops premature passions, and imparts to persons of delicate temperament a morbid acuteness of feeling, at the same time it reforms grosser characters, the influence to approaching which induces the Swiss mountaineer to desert his colours, and which, on the other hand, imparts such excitement to whole armies, that the field of carnage becomes the field of sport. Since we find domestic animals, reptiles and spiders so acutely alive to the power of music, and have, in the "Philosophical Transactions," a record of notes which greatly agitate wild beasts, we may be prepared to understand some of its effects upon man. Savage nations have been thrown into a state of frenzy on first hearing European music. The chronicles of the time relate that the Duc de Joyeuse, while his nuptial festivities were celebrating in the presence of Henry the Third, was thrown into such agitation by hearing the performance of a celebrated minstrel, that he drew his sword, and was restrained with difficulty from committing violence: his delirium yielded at length to a gentle strain of music.

Music is well known to impart energy and convey relief in muscular exertion. Troops who march in silence are more easily fatigued than when their step is regulated by the drum and fife. In some gymnastic schools of the continent, the young athletæ are accustomed to take their exercises to the sound of music, to diminish their fatigue. The rope-dancer mainly depends on it. The Canadian boatmen and the gondolier seek instinctively to increase their energy, as well as to lighten their labours, by their native melodies; and we may also add, that music has been employed with success in the cure of diseases.

PHYSICAL EXERCISE OF THE SENSES.

Sound is to the ear what light is to the eye: they both contribute beneficially to stimulate the human system, besides their important agency in the functions of relation. Sound, reaching the drum of the ear, excites the auditory nerves, which, carrying their impression to the brain, rouses it to a more active exercise of its function —that of conveying nervous energy to all parts of the body. Even in a healthy state of the frame, perhaps if the brain were not kept alive by sound, light, touch, taste and smell, it would lapse into impotency. Few, perhaps, consider the effects of these stimulants, light, sound, &c., on the body; that, without locomotion, they exercise it; that, like other stimulants, they exhaust it; that when we have passed some hours with our bodies in repose, our ears taking in a constant succession and variety of sounds, we are fatigued, and require rest as much as if we had walked many miles. Hence it is that in sickness, light and sound aggravate or even occasionally produce fever.

NOTICES.

The Members and Friends of the Practitioners and Agents' Society, in connection with Dr. COFFIN, are respectfully informed that the seventh Annual Meeting of the Society will be held at the Freemasons' Tavern, Great Queen Street, London, on Tuesday, the 3rd day of August, next, 1858, when all the Friends are requested to attend as business of importance will be laid before the Meeting.

On behalf of the Committee,
J. THOMAS, SECRETARY.

7, Hinde Street, Newcastle-on-Tyne,
July 1st, 1858.

Dr. COFFIN may be consulted gratis, as usual, every Saturday evening, from four to eight o'clock, at the Botanic Establishment, No. 24, Union-street, East, Spitalfields. *Patients not admitted to the waiting-room after eight o'clock.*

Dr. COFFIN may also be consulted at his residence, 24, Montague Place, Russell-square, daily *(Sundays excepted)*, from one to two o clock (fee one guinea), on any day except Monday, on which day the fee will be five shillings only.

Advice gratis, every morning, from ten to one o'clock, at the establishment, No. 134, High Holborn, nine doors from New Oxford-street, nearly opposite the London and Westminster Bank, Bloomsbury Branch.

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Visits to Patients, 2*s.* 6*d.*, in advance.

In No. 255 of our Journal, an advertisement of Mr. Brockies appeared, announcing his being the only Accredited and Authorised Agent for East and West Hartlepool. Our Editor, not knowing that

CAPTAIN JOHN NAYLER,

of St. Hilda-street, Old Hartlepool, was Accepted Agent for West Hartlepool, allowed its insertion. Captain John Nayler not only was our Agent in 1850, but also is our Accredited Agent for West Hartlepool, who continues to dispense all the Herbs, Roots, Barks, Powders, &c., used in Dr. COFFIN'S Medico-Botanic System of Medicine, of whom also may be obtained all Dr. COFFIN'S Medico-Botanic Works.

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Explanatory of the Principles of Botanic Treatment; to which is added a compact Pharmacopœia of Botanic Medicines, by

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Medical Botanist, and Agent for Dr. COFFIN, founder of the Botanic System in England,

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The Botanical Journal and Medical Reformer is published Fortnightly, at No. 134, High Holborn, London, where all orders must be addressed.

COFFIN'S
BOTANICAL JOURNAL
AND
MEDICAL REFORMER.

" Human experience, which is constantly contradicting theory, is the great test of truth."—Dr. Johnson.

No. 266—Vol. VIII. SATURDAY, JULY 24, 1858. Price 1d.

THE GLEANER, No. 12.

DISTINCTIONS BETWEEN MAN AND ANIMALS; OR, SPECIFIC CHARACTERS OF MAN.

The breadth of the human pelvis affords an ample basis of support for the trunk; and this receives a still further transverse enlargement by the length of the cervix femoris (neck of thigh-bone), another peculiarity of human organisation. This long neck throws the body of the bone outwards, disengages its shaft from the hip-joint, and thus increases the extent of rotation: it gives the body greater firmness in standing, without impeding progression, since the head of the bone, and not the body, is the centre of motion. If the thigh-bones possessed no neck, but were kept equally far apart by increasing the distance between the cotyloid cavities, the attitude of standing would be just as secure, the transverse base of support being still the same; but progression would be impeded, as it actually is in the female, from the greater transverse diameter of the pelvis.

Another character of the human femur is the obliquity of its shaft, and superior length of the internal condyle (the rounded head of thigh-bone), arising from the breadth of the pelvis, and length of the cervix, combined with the necessity for bringing its lower end perpendicularly under the pelvis, in reference to the secure support of the trunk.

The line of direction of the human femur is perpendicularly the same as that of the trunk: its axis coincides with the centre of gravity of the body; it is placed perpendicularly under the pelvis, and thus supports the trunk steadily. In all other animals it forms an angle with the spine, and this is often an acute one. It is obvious that the erect attitude must be extremely unsteady, and the difficulty of maintaining the body in equilibrio very great in such an arrangement. When the vertebral column is raised perpendicularly in the ourang-utang, the thigh-bones form an obtuse angle with it, the long arms preserve the balance, as they do likewise in the gibbon. The angle is increased in quadrupeds under similar circumstances, and the efforts they make to remain upright on the hind feet are continued with difficulty, more especially if not assisted by some other advantages of construction, as in the bear, for instance, by the length of the heel. The feet, being the ultimate supports of the whole frame and the primary agents of locomotion, are characterised by a combination of greater breadth, strength, and solidity, in proportion to the size of the body, than those of any animal. The whole surface of the tarsus, metatarsus and toes, rests on the ground, and the os calcis forms a right angle with the leg. The two last circumstances are seen in no other animal. Even the simiæ (apes) and the bear have the end of the os calcis raised, so that this bone begins to form an acute angle with the leg; the dog, the cat and other digitated quadrupeds, even the elephant himself, do not rest upon the tarsus or carpus, but merely on the toes; the cloven-hoofed ruminants touch the ground merely with the extremities of the third phalanges, and the os calcis is raised nearly into a perpendicular position.

Thus, as we depart from man, the foot is more and more contracted and elongated, the part serving for support reduced, and the angle of the heel-bone rendered more acute.

The great size of the os calcis, and particularly the bulk and prominence of its posterior projection, to which the powerful muscles of the calf are affixed, correspond to its important office of supporting the back of the foot, and resisting force applied to the front of the body. This single bone is therefore an infallible characteristic of man.

The concavity of the sole is an arrangement rendered necessary by the whole surface resting flat on the ground. It provides room for the muscles, nerves, vessels and tendons of the toes. It also assists the functions of the foot, by enabling it to gain a kind of hold of the bodies on which it rests, and to accommodate itself to unequal surfaces—an advantage almost destroyed by the use of shoes, but eminently conspicuous in those people whose feet are not cramped by artificial means of defence. The gradually increased breadth of the foot towards the front, the predominance of its solid and nearly immovable parts, the tarsus and metatarsus over the more flexible toes, the direction of the metatarsal bone supporting the great toe, its situation and want of mobility, are circumstances of strong contrast with the structure of the hand; plainly pointing out the former as organised for strength and resistance, and adapted to increase the extent and solidity of its support.

A further argument to the same effect may be drawn from the comparative progress of ossification in the two members. The bones of the tarsus, and particularly the os calcis, ossify at an earlier period, and advance more rapidly in their development, than those of the carpus. Very little strength of hand is required in the first years of life; while the feet, at the end of twelve months, begin to be employed in sustaining the body and advancing it by progressive motion.

The lower limbs can be separated more widely in man than in any animal, in consequence of the great breadth of the pelvis and length of the cervix femoris (neck of the thighbone). Thus we are enabled to derive the full advantage from those admirable instruments of support, the feet—an advantage which may be estimated by observing the varied motions, the rapid changes, and multiplied combinations of movement, according to the probable direction of the expected impulse, in boxing, wrestling and other similar feats of activity, in pushing, pulling, &c., &c.

In all the particulars just described, we see strong contrast between man and the nearest or most anthropomorphous animals, even the monkey and orang-utang. In the latter, the cervix femoris is short, the thigh-bone straight, and its two condyles of equal length. The foot rests on its outer edge, the heel not touching the ground, the tarsus is contracted, and the digital phalanges lengthened, so that in these respects it resembles a hand.

The peculiarities of the human pelvis coincide with those of the lower limbs. The form of this part is very characteristic in man, and distinguishes him from the simiæ, and indeed from all other mammalia. It might be asserted that the human skeleton alone has a proper *pelvis*; that is, such an incurvation of the sacrum and coccyx, and such an union of them with the ossa innominata, as forms a basin-like cavity, from which the space included between the elongated ilia and the straight sacrum and coccyx of monkeys differs in toto. In the orang-utang and the elephant we find the nearest approach to the human formation: in the former, however, the upper part of the ilium is narrow and elongated, stretching upwards in the direction of the spine, and its length exceeds its breadth, so that the relations of these two dimensions are very different in man and this animal. In the latter, the symphysis pubis is very deep, and in both there is neither that incurvation of the sacrum from the promontory downwards, nor that direction of the coccyx forwards, which, with the broad horizontal expansion of the ilia, and the shallowness of the symphysis pubis, are peculiar to the human frame, and make it a broad and firm basis for the trunk, on which the weight of the abdominal contents, and particularly of the pregnant uterus, is supported.

The lower part of the sacrum and the

os coccygis are turned forward in man, and form the only firm bony resistance, in the inferior aperture of the pelvis, to the abdominal viscera, forced downwards by the diaphragm and abdominal muscles. These bones are straight in all other animals, because the weight of the viscera is differently supported. Even in the orang-utang the sacrum is flat and contracted, and continued, together with the os coccygis, in a straight line with the vertebral column. If the human sacrum and coccyx had been continued in a straight line with the spine, as those of the orang-utang and monkeys are, the ossa innominata remaining as at present, they would have projected beyond those bones, so as to disable us from sitting. The curve which they describe in man only obviates this inconvenience, and allows the pelvis to rest securely, in the sitting attitude, on the broad and strong ischiatic tuberosities.

TORPOR OF THE LIVER;

WITH A DIMINISHED SECRETION OF BILE.

This is one form of that protean phalanx of bilious disorders, which, after inflicting much discomfort and misery on the unhappy sufferer, end, if neglected, in severe and dangerous organic disease. Without reasonable or adequate cause, the person affected is habitually subject to lowness of spirits, with a strong inclination or tendency to despondency, which causes him or her to view every occurrence of life in its most unfavourable aspect, and which magnifies every little molehill of a difficulty into an impassable mountain. Hypochondria claims him as her own, and in his own imagination, in his unhappy person are centred "all the ills that flesh is heir to." The present is full of complainings, and as, to the future, his mind is the seat of the direst forebodings. His appetite, instead of being as formerly, has grown very deficient; those dishes in which he was wont to delight, are no longer pleasant to him. He is troubled with flatulency, and suffers from fugitive, sharp pains through the chest and abdomen; his bowels are irregular, and generally costive, and of an unnatural colour; the secretion from his kidneys is generally changed in quantity, as well as qualiity; the countenance and skin is generally sallow and muddy, and there is a disagreeable taste in the mouth; the tongue is more or less foul. The languor and heaviness increase, till at length there is an entire disinclination for business or amusement. As the disease advances, obstinate costiveness sets in, and the capillary circulation is languid. All the various annoyances of dyspepsia are speedily present. The cellular tissue becomes flaccid, accompanied by ænemic paleness and great debility; digestion early fails and the general health becomes seriously affected; the nervous powers speedily lose their energy, although they are more irritable; the intellect remains good, but indolent, the muscles turn attenuated and feeble, and the whole organism rapidly becomes enervated and effeminate. If not removed, the result is serious organic disease.

Torpor of the liver is not an unfrequent cause of chlorosis in young females. In such cases the blood is frequently not only remarkably deficient in quantity, but also in quality, in respect of the relative proportion of its red particles. In many cases in which the absolute quantity of blood in the body is deficient, the red globules are still more deficient, being insufficient to give the fluid its normal colour. In such cases the countenance and integuments present a pale, waxy, blanched appearance, the lips and tongue and inside of the mouth partaking of the general paleness; the pulse is small and irregular, and is readily affected by mental emotion; there is much languor and weakness, with irregularities of the bowels, flatulence, and frequent nausea; the appetite is capricious, and the ankles and feet frequently swollen, particularly in the evening.

In nine cases out of ten, torpor of the liver can be traced to neglect of the bowels, accompanied often by accumulation in the intestinal canal; it is also often produced by neglect of exercise, sedentary employments, indolent indulgences, errors in diet, and excess or intemperance of any description. It follows very frequently habitual over-excitement of the stomach and liver, from eating and drinking rich and heating articles of diet, without the necessary correctives of air and exercise.

In some constitutions, atmospheric influences strongly predispose to this disease; mental emotions, particularly deep-seated grief, frequently bring it on, as also does intense and continued study. As might be expected, we frequently find that clergymen, especially dissenting ministers, from this cause are frequent sufferers from torpor.

The usual treatment adopted in this form of bilious disorder by routine practitioners is the exhibition of some preparation of mercury, such as a blue pill at night, followed next morning by a black draught. This is most injudicious treatment, for although temporary benefit apparently results from this system, still from the well ascertained evil results that eventually follow the practice, no medical man who values the real interests of his patient will have recourse to it. The frequent use of mercury under any form is always prejudicial in the long run; for the liver, after having been accustomed to the stimulus of this medicine, no other drug will so efficiently temporarily excite its action; consequently the mercury is persevered in until the constitution is irreparably ruined; and although apparent temporary benefit is experienced at the moment, it is undeniable that this temporary melioration is bought at too high a price; for, granting that by the exhibition of the mineral, the activity of the liver is increased for the time being, it is eventually left, as a consequence of this over-excitement, weaker than before; and if the state of activity is to be kept up, the mercury must be continued in more frequently repeated and larger doses. In all such cases mercury should be rigidly abstained from, and instead, the assimilative treatment, as indicated by the secretions, prescribed. The sluggish action of the liver may also at the same time be stimulated without the danger of after bad effects, by vegetable stimulants that have a direct action over the biliary secretion. The most valuable of these is taraxacum (dandelion), which I have found, as an alterative, tonic and deobstruent promoter of the biliary secretion, inferior to no medicine.

Along with strictly medical treatment it is necessary to combine dietetic regulations. The exciting cause of the disease, the bad habits, as I must call them, must be given up; early hours are imperative; and a due amount of exercise proportioned to each individual case may be taken daily. Study and mental application must be restrained within due bounds, and the mind unbent and relaxed with harmless amusement. By a steady perseverance in this course, along with the assimilative treatment, a speedy restoration to health will be brought about.

FACTS FOR FAMILIES.

From the "Destructive Art of Healing."

(Continued from page 316.)

ABSTRACTEDLY speaking (continues our author), there is but one health and one disease!

Many and various, it is true, are the supposed *partial* complaints which medical men usually term "local disorders;" but, strictly speaking, local disorders are so rare, that, with the exception of a few mechanical diseases, I scarcely know a so-called local complaint that I have not myself cured by constitutional, internal means. The greater number of so-called local diseases gradually grow out of a great *antecedent*, though sometimes *coincident*, febrile CONSTITUTIONAL WRONG. When carefully watched, the origin of every such constitutional disturbance, *whatever be its cause or causes*, may, in every case, like the ague-fit, be readily traced to the brain and nerves. Moreover, when analysed, like that disease, every kind of constitutional disturbance, whether of the "circulating or nervous system," or both, will be found to resolve itself into an aguish or febrile movement of every organ and atom of the entire body, intermittent and fitful like the ague, and, like it, attended with alternations of temperature and other phenomena, all more or less *periodic* in their character. In disease, as in health, every animal body, I maintain, betrays this tendency to remit, repeat, and keep time.

The discovery of the circulation of the blood, incredible as it may seem, has hitherto rather tended to retard than to assist the progress of the healing art. Dazzled by the brilliancy of that discovery, medical writers, during the last two

centuries, have made the circulation and its apparatus the all but exclusive object of their reasonings on disease. The phrases "rush of blood to the head," "pressure on the brain," "plethora," "congestion," &c., are the still existing relics of this curious misapplication of a great physiological truth; and hence, to a certain extent, the continuance to the present day of the false and fatal sanguinary practice. Slurring over in their medical reasonings all mention of the brain and nerves, the majority of professors either could not or would not see that the heart, to whose motions they so exclusively directed attention, is a mere circulator of the material of repair, and liable, like every other organ of the body, to be disturbed by whatever disturbs the sentient nervous system. Not the movements of the heart only, but the very constitution and vitality of the blood itself, depend on the condition of the brain and nerves—the pulse, whatever the doctors may think or say to the contrary, playing a very secondary part in the phenomena of disease! The cerebro-nervous system is the great telegraphic system of the body. The head is the chief electric station, the whole managing influence being concentrated in the brain. Not an organ of the frame can change its motion, nor an atom change its place, whether beneficially or otherwise, without the cognizance of one or more portions of the *sentient* cerebral mass; while the nerves, lightning-like in their action, are so many electric wires by which the all-dominating brain transmits and receives impressions to and from the most distant parts of the economy. Through this brain, and through these nerves only, can *morbid* impressions be made on the body; and upon this brain, and upon these nerves also, in the first instance, must bark and every other remedial force, act before they can possibly produce a *salutary* influence in any kind of disease. The cause of *cure*, like the cause of *disease*, must be *perceived* by the sensorium before it can tell on any part of the frame. If the brain and nerves, as is indisputable, constitute the sole *sensific*, the sole perceptive system of the body, how can any agency, salutary or the reverse, influence the frame without being first perceived by this *cerebro-nervous* sensorium? Here, then, must be the beginning of all medicinal agency. Here, too, is the seat and source of the passions, which play such an important part in the human constitution. By inducing, like the passions, a new revolution of the brain, a new movement of the cerebral atoms, bark, &c., tell on the various nerves of the body—not mechanically or chemically, but *electrically*—and like every electrical agent, all medicines *may*, in different bodies, have a totally different action—an action of attraction, or an action of repulsion; hence their difference of effect on different constitutions, even in the same diseases! A similar difference of result, beneficial in one instance, baneful in another, may be observed in the case of the passions, as in the case of medicines. Lives there the practical physician who will deny the possibility of any kind of constitutional disease being caused or cured by a revolution of the brain through any one of the passions or emotions? The very fact of a mental emotion curing or causing any given form of disease, at once stamps that particular disease at least as a true constitutional complaint. I scarcely know a disorder that has not been *caused*, and in numerous instances *cured*, in this manner. Gout, tic, toothache, palsy, epilepsy, fever, ague, melancholia, mania, have all, in my experience, been caused and cured by mental impressions. These diseases, one and all, then, are febrile diseases. What is mania but a chronic delirious fever, and its "lucid intervals" but mere *intermissions* between the paroxysms of a fever, which so many of the mad doctors continue to this hour to mistreat by leeching, purging, setons, issues, &c., precisely as Sir B. Brodie for thirty years mistreated diseases of the spine! A fit of mania is as common a saying as a fit of the ague; and few of the laity, at least, who, like myself, have seen the maniac with aguish cheek or flushed forehead, will demur to the explanation I have here given of this particular disease. A fit of palsy, a fit of gout, a fit of rheumatism, a fit of colic—nay, a fit of the stone, were expressions in everybody's mouth long before "the malaria from the wood pavement induced all diseases to take on the periodic

type!" Equally fitful are the greater number of human diseases. Yet not till the year 1850, did Sir B. Brodie for one appear to recognise the "fitful alternations of temperature," the chills and heats which "periodically affect the joints" in the particular diseases on which he had been occupied all his life long. During thirty years, at least, that eminent surgeon was in complete ignorance of the intermittency of the phenomena of joint diseases! But even in 1850, Sir B. Brodie says nothing of the malaria from the wood pavement, which Dr. Copland so gravely assures us has, in London at least, turned the practice both of surgeons and physicians completely topsy-turvy. If we believe what Dr. Copland deliberately stated before the Westminster Medical Society in 1844, there was no such thing as a general periodicity of disease till 1826 or '27. Before '26 or '27 that distinguished medical writer will have it the greater number of diseases were "continuous" and "inflammatory." Therefore, according to Dr. Copland, bleeding, repeated and re-repeated even to the point of death, was, in chest disease more particularly—till this epoch—the *sine quâ non* of remedies. Then, too, according to him, for the first time "quinine" and "bark" required to be substituted for bleeding in the diseases of that cavity. Why did Dr. Copland delay till 1844 to announce his discovery of that "fact?" I have already shown the prevalence of the sanguinary treatment in 1836, when I first took up my pen to denounce it in every and all of its forms. For my "mad opposition" to what the doctors then called the "right arm of practice," I was for years afterwards held up to supreme ridicule. The tables have turned since then. Finding the stream at last to run in a contrary direction, certain of the London apothecaries, with their usual astuteness, now have the impudence to maintain that they themselves actually anticipated me in the anti-sanguinary movement! If that be true, how came Dr. Watson—their own "great authority," the man they call in on all occasions—even so late as 1845, to recommend, in his "Practice of Physic," bleeding, leeching, and cupping for almost all complaints?

(To be continued.)

A REVIEW OF THE OLD SCHOOL PRACTICE OF PHYSIC.

BY J. NADEN, SHEFFIELD.

(Continued from page 323.)

It is stated somewhere that medical men know little of the medicine they put into bottles; and they know less of its action upon the human system. We do not often find medical men taking their own drugs. In the memoir of Dr. Cleveland, who died at the advanced age of eighty years, he states, he declined, in opposition to his medical advisers, the use of narcotics, which would have relieved his pain, lest they should deaden his moral and intellectual sensibilities. Dr. Warren, Professor of Anatomy and Surgery, remarked in one of his lectures, "As I was walking in the street, I felt a sudden pain in the back part of my leg; the pain was seated in one of the nerves, and was rather obstinate. There were two remedies which I could employ; either a dose of laudanum, or a long walk. I preferred the latter, and it afforded me the desired effect." Query, whether Dr. Warren, were he called to a patient similarly afflicted, would recommend the poison of opium or a little wholesome exercise? I leave the reader to judge. Professor Bigelow had but litte confidence in the medicines he used. Speaking before his class on typhus-fever he said, "No question has been more agitated than whether this disease can be cut short by active treatment." Six or seven years ago this opinion was prevalent among us, but it is now entirely abandoned; for, it has been found, that although a patient were bled, blistered, purged, and salivated, the fever still continued its course. What a difference in the opinions and treatment of fevers by Dr. Coffin! Professor Bigelow, with all our treatment, it must have its course. Dr. Coffin says it has no course to run: it is an effort on the part of nature to help herself. "There is scarcely any treatment," continued the professor, "which has not been in vogue in typhus-fever: at one time patients were bled and purged; at another salivated; at a third treated with antimony; but all these have fallen into disrepute." Nevertheless, when we are called upon to a case, we must order a prescription, for we cannot

stand by as idle spectators; and if the patient should fortunately recover, let the physician look at the scores of bottles and quantity of medicines accumulated in the sick chambers, this being the consequence of an almost daily change of medicine, and if he be a candid man, he will confess that there is a doubt whether the remedies employed have been of any service, or whether the patients would not have recovered without any treatment whatever. There is something in the operation of a poison on the human frame, though it may be given in small doses, which ought to suggest to the medical man the danger, or at least the impropriety, of employing such an agent; but he has been educated to believe that nothing short of poisons can cure disease; and it will take a long time to relinquish these preconceived notions: thus it is, that reform in medicine is so tardy in its progress. Pliny informs us that Rome was five hundred years without physicians; her rulers forbade the practice of medicine, and banished its professors. Would they have done this if they had not seen the ill effects of medical treatment? When Archagathus, a Peloponnesian, first established himself at Rome, as a medical practitioner, he was treated with great respect, and was even maintained at the public expense; but his practice was so severe and unsuccessful, that both he and his medical brethren were banished from the city. If the medical practice had been banished from this and other countries, we should not then have to grieve over the page of history, and observe how many distinguished individuals have been its unsuspecting victims. Byron, England's noblest poet, was bled to death. Washington, the leader of the American Independence, having fought the battles of his country, was killed by the medical treatment, according to the best authority. I will quote the observations of John Reid, M.D., Physician to the Finsbury Hospital, London, and Professor of the Theory and Practice of Physic. "In reading the official report of the death of General Washington," says Dr. Reid, "I should imagine there were few medical men who did not feel astonishment at the extraordinary manner in which that great man was treated by his physicians during his last and fatal indisposition." Some time in the night of the 13th of December, it is said, the General was seized with a disease called the cynanche trachealis, or croup. During the same night he sent for a bleeder, who took from him twelve or fourteen ounces of blood. Next morning a physician was sent for, who arrived at Mount Vernon at eleven o'clock, when, imagining danger in the case, called in two consulting physicians in the intervals. However, he thought proper to employ, in spite of the twelve or fourteen ounces that had already been expended, two copious bleedings. Now, when we consider that these are called copious bleedings, and the other is not noticed as such, and all the indifference with which a future most copious bleeding is afterwards mentioned, we may presume that these were from twenty to twenty-five ounces. After this, two moderate doses of calomel were administered. What an American dose of calomel may be I know not; but if it is fair to presume it to be in proportion to the bleedings, we may conclude it was very considerable. Upon the arrival of the first consulting physician, it was agreed that, as there was no signs of accumulations in the bronchial vessels of the lungs, they were driven to another bleeding: hence it will be seen that this last bleeding was to produce an accumulation in the bronchial vessels of the lungs. There was great difficulty in breathing, great inflammation; but there was as yet no accumulation in the lungs. They were determined to induce that also, and, as a likely means of inducing it, had recourse to the most extravagant effusion of blood. This is not an unfair interpretation of their words, but it could not have been their real meaning; it is impossible to discover their meaning. In addition to all their previous venesections, thirty-two ounces more were then drawn. The medical reader will not be surprised to find this was unattended by any apparent alleviation of the disease. Vapours of water and vinegar were inhaled, two doses of calomel were already given, but this being not deemed sufficient, ten grains of calomel were added: nor was this even sufficient. Repeated doses of tartar emetic, amount-

ing in all to five or six grains, were now administered. It is said the powers of life now yielded to the disorder. (No wonder.) To many it may appear, that the yielding of the vital principle, in these circumstances, was not altogether owing to the force of the disorder. The patient lying in this feeble state, nearly exhausted, was to be further tormented. Blisters were next applied to his extremities, with a cataplasm of bran and vinegar to his throat. It was observed, that speaking, painful from the beginning, now became scarcely practicable. When we reflect upon the extreme weakness to which the patient by this time was reduced, can we wonder that speaking would be scarcely practicable? Respiration grew more and more contracted and imperfect, until about eleven o'clock, when he expired without a struggle. Just think of a man being, within the brief space of a little more than twelve hours, deprived of eighty or ninety ounces of blood, afterwards swallowing two moderate American doses of calomel, which were accompanied by an injection, then ten grains of calomel, five or six grains of tartar emetic, a blister applied to his throat, upon which a blister had already been fixed. Is it surprising, that when thus treated, the afflicted General, after various ineffectual struggles for utterance, at length articulated a desire that he might be allowed to die without interruption. It is admitted by medical men generally, that Washington fell a victim to the lancet. William Cobbet, in the eleventh volume of his work, page 20, says, "that the lancet, which has destroyed more lives in America than the yellow fever, put a period to the existence of General Washington, no one can doubt." Well might one medical man call the present practice of physic the "heroic practice of medicine." Hippocrates, who flourished about five hundred years before Christ, entertained an opinion that blood should be taken from the vein nearest the part affected; but the Arabian physicians, many centuries after his time, promulgated a contrary doctrine; and this trifling difference of opinion, observes Dr. Clutterbuck, was the cause of great and lasting controversies in the schools of physic. To such a height, indeed, was the dispute carried, that the University of Salamanca made a decree, that no one should dare to bleed from the side affected. Preposterous as the above may appear, it has its parallel at the present day in what is termed cross bleeding. "This," says Magendie, in a strain of well merited satire, "is reserved for great occasions. Suppose a case in which ordinary remedies have failed, a consultation of medical celebrities is of course held; and upon what do you suppose the deliberations sometimes turn? Upon the propriety of opening a vein in the right arm, at the same time another in the left foot. I was actually, some time past," he continues, "one of a consulting party, among whom this proposition led to a discussion worthy of taking rank in one of the richest scenes of comedy. The patient was a dying man, had but a few moments to live. Who would have dreamed that in an age, which judges with such severity the prejudices of our fathers, men could be found not only to tolerate, but actually to extol, such superannuated practices. Is there, I would ask, such a great difference between the wearing of amulets, which have supplied such a capital butt for our jibes, and the confidence attributed to bleedings? The day will come—and may it not be far removed—when the profession will refuse to believe or countenance such monstrous absurdities."

(To be continued.)

DR. COFFIN'S LECTURES ON THE NORTH AMERICAN INDIANS.

A VERY interesting lecture was given by Dr. A. I. COFFIN, M.D., upon the above subject, at the Working Men's Institute, Gray's Inn Road, on Tuesday, the 6th of July, inst. A synopsis of the lecture we give our readers, which, no doubt, will be acceptable. Dr. COFFIN commenced by detailing the persecution and landing of the pilgrim fathers upon the shores of America, recounting the surprise and consternation of the Indians upon the appearance of the pale faces, as the Europeans were designated by them; also their kind reception of the new comers. The lecturer then introduced

a cast of a North American Chieftain's head, and contrasted it with a cast of a Carib head; also exhibiting a natural European skull, contrasting the three together, and showing the capability of improvement and civilisation portrayed in the large development of brain in the Indian conformation; preparatory to the lecturer's description of their form of government. The patience with which each speaker was heard, so unlike many of our parliamentary debates, and conducted with such order as to shame our senate. Their chieftains, men selected on account of their daring courage, their prudence, and their sagacity, yet having no more of the property belonging to the tribe than any other member. Their villages; their sense of justice, illustrating this point by an anecdote of the Indians purchasing some gunpowder, and, being desirous of knowing how it was produced, were informed that it was grown, and received directions how to sow it, which was done; finding it not to germinate, they were disappointed, and when the trader brought some more articles for disposal, they unceremoniously helped themselves, and told him they would pay when they sold their crop of gunpowder. Their wars; here Dr. COFFIN introduced specimens of their rude weapons made of stone, sharpened prior to their possessing fire-arms. And their poetry; full of natural and beautiful imagery, quite Ossianic, some of which the doctor delighted his audience by reciting. The lecture brought to our mind the thrilling and heart-stirring narratives of Cooper and Bird, though all must acknowledge they are too highly coloured. The great merit of Dr. COFFIN's lecture consisted in its perfect truthfulness, he having been present in most of the scenes he so graphically describes. And the audience retired highly gratified.

THE RURAL STROLL.

(Continued from page 317.)

OUR stroll now continues to be in quest of and among our medicinal plants; among those which have been proved by experience to contain the necessary principles that counteract disease, and assist the natural efforts of the living body to expel the unwelcome intruder. Suppose we are rambling about Hampstead Heath, or any other heathy locality during the present month, we soon catch sight of that pretty-foliaged, lowly plant, the tormentil (tormentilla reptans) with its sweet yellow flower, and surprisingly large reddish brown root, so disproportionate to the plant, which, in fact, is the only part used medicinally, being a powerful astringent, and highly useful (when reduced to powder), in bowel complaints, even of long standing, given in doses of from five to twelve grains. A few steps further brings us to a tall-growing plant, close to or in the middle of a furze-bush; upon inspection, we find the leaf much like our garden sage, but more hoary. This is the wood sage (teucrium scorodonia) with its long spikes of light yellowish-green flowers. It is perennial, it is an excellent bitter, and removes obstructions from the kidneys and bladder; mixed with linseed-meal, it makes one of the most valuable poultices for tumours, boils, &c. cleansing and radically healing them. In shady places we come to another yellow-flowering herb, the avens (geum urbanum): the root only is used, being a mild astringent and tonic, and a valuable medicine in typhus or putrid fever. A little further along the hedgerow brings us to the hyssop (hyssopus), a perennial, growing about a foot high, with its thin whorls of blue flowers set on the sides of the stalk—a good pectoral and expectorant, therefore good for colds and coughs: extending our walk along the fields, it is impossible to miss the dandelion (leontodon taraxacum), and though so common, is a plant of rare virtue, being a diuretic, tonic and aperient, having a direct action upon the liver and kidneys; it is a plant of rare virtue. Close by this grows our important herb yarrow (Achillea millefolium), a perennial plant, with leaves like a carrot, now about coming into full bloom, with its beautiful head of white, cream-coloured or sometimes purplish flowers, growing upon a stem from twelve to eighteen inches high. No herb in all our materia medica can be employed so beneficially in the early stages of disease as this: it equalises the circulation by inducing a determination to the surface, it is mildly

tonic, acts upon the kidneys, and is good for colic, cramps and pains of the bowels. We must not however forget to mention one lowly little plant, growing on heaths and hills, namely, the mountain flax, one of the best and safest purgatives we have, greatly superior to senna, being devoid of griping qualities. Pennyroyal (mentha pulegium), a perennial herb, flowering this month, claims a portion of our attention, and is another valuable addition to our stock, being compounded of very warm, subtile and penetrating qualities, more powerful than and preferable to all the mints; it is opening, discussive, carminative and pectoral. Mr. Boyle recommends a spoonful of the juice sweetened with candy, as a sure cure for the whooping cough.

This month also presents us with that most valuable bitter, the bog bean (menyanthes trifoliata), with its beautiful and elegant flowers, and deep green leaves, one of the best correctors of the bile, acts specifically upon the liver, excellent in intermittents and rheumatism. That beautiful herb bistort (polygonum bistorta), with its curiously reticulated, veined leaves, is now in flower; one of the safest astringents known, not violent but sure. The golden rod and tansey may now be sought and gathered, besides many useful herbs, which are not expressly named in our materia medica.

ON THE SKIN IN CONJUNCTION WITH BATHING.

"I verily believe a cold bath would be one of the most healthful exercises in the world, were it made use of in the education of youth. It would make their bodies more than proof to the injuries of time and the weather. It would be something like what the poets tell us of Achilles, whom his mother is said to have dipped, when he was a child, in the river Styx. The story adds, that this made him invulnerable all over, excepting that part which his mother held in her hand during this immersion, and which by that means lost the benefit of these hardening waters."—GUARDIAN, No. 102.

ON the propriety of regular and frequent ablution as a means of cleanliness, it is scarcely needless to enter. But I have set apart this chapter to a consideration of the physiological effects of water, whether applied to the surface of the body, or taken into the stomach.

It will be necessary to premise my observations on the effects of water applied to the surface, by some short account of the skin itself.

The skin is to be regarded, not only as a covering to the body, as a protection to the softer and more delicate, and more sensitive structures placed beneath it, but as being also intended to subserve many other offices no less important, although some of these offices will possibly be now first made known to the reader. The skin is constantly performing, as I have already had occasion to mention, the necessary function of expelling a considerable portion of the residue of nutrition and digestion. "To man," says Bichât, "it is a sensitive limit placed on the boundaries of his frame, with which limit exterior forms incessantly come in contact, to establish the connexions of his animal life, and thus bind his existence with that of all which surrounds him." Eminently a bad conductor of heat, it maintains the elevated temperature of the body by confining its heat, and prevents external heat and external cold from necessarily and at once destroying life. Protected by this power of resisting the passage of heat, life continues under the severest cold, and is able to endure with comparatively little inconvenience almost incredible elevations of temperature. Supplied with an enormous amount of nervous filaments, to endow it with sensation, it not only acts as the sentinel against danger, as the mind's ready and most accurate informant on all points connected with external things, but it is a ready means by which the mind may be made to endure extreme suffering, and the sensorial functions be materially and directly injured: it is a ready means by which the nervous system may be soothed, quietude and tranquil feelings brought back, and even cheerfulness and mental acuteness substituted for melancholy and mental torpor. Furnished with a vast amount of blood to supply its own substance constant renewal, to supply to its secreting organs, and to keep up the energy and healthiness of the nerves, which are dependent on the supply of blood, the skin is to be looked upon as an important organ, by influencing which a very large quantity of blood may be suddenly thrown into the system, and

there, in an incredibly short time, produce perhaps irreparable injury; as an organ, by attracting the blood to which, the internal organs may be relieved at once from a load of blood, and enabled to resume the performance of those natural and necessary functions which it is their business to discharge, and which that gorging of the vessels had interrupted. When it is considered that, probably, the extent of the skin in a man of ordinary size is not less than 2500 square inches, we could scarcely wonder at any, however extravagant, estimate of the quantity of blood which it always, when healthy, contains; we could scarcely feel surprised, if we were told that it contains more nervous matter than that which forms the brain or the spinal marrow.

The skin, properly so called, is covered by a much thinner layer, called the cuticle—a layer which may with little impropriety be called inorganic; a structure which is destitute of nerves or blood-vessels, without feeling or sensation of any kind, and, in fact, without life. This structure is then intermediate between the body and external objects: it protects it from being irritated by contact with those objects, without preventing it from feeling them. This is not renewed in the way that other parts of the body are, by absorption of the old and deposition of new particles, but by a constant deposition of small scales, or powder, the particles of which adhering to the subjacent surface and to each other, constitute the cuticle. By friction these are partly rubbed off, likewise by ablution. If neither rubbed nor washed, the deposition going on, these scales or particles, accumulate and form a thick crust on the outer side of the cuticle, a fact of which any person who has neglected to wash his feet may readily satisfy himself.

Under the cuticle, between it and the skin, is situated what is sometimes, but, as it would seem, erroneously, called a coat or layer, the rete mucosum, a net-work of vessels of excessive minuteness—a net-work which, according to Bichât, consists of two distinct sets of vessels; the one containing colourless fluids, which set supplies the exhalants, and consequently produces the perspiration, which, although usually filled with colourless fluids, may, by excitement of the heart's action, by exercise, or emotions, or passions, or by exciting the vascular action of the part by friction, be filled with red particles, with blood, as after running, as in blushing, &c.; and another set, in which there is always a languid circulation of fluids, those fluids being of different colours in the different races of men—black in the negro, white in the European, &c. Well; this delicate net-work, whose important effects I shall presently have to enlarge upon, is penetrated by papillæ, which come in contact with the cuticle, and are the seat of touch; these papillæ arising from the skin, which, a highly vascular and nervous structure, flexible, elastic, and contractile, is loosely connected to the subjacent textures by cellular tissue; the interstices between those textures being more or less filled up with fatty matters, give roundness, and smoothness, and contour to the form.

After this brief, but perhaps sufficient notice of the structure and functions of the skin, I shall shortly notice the effect which temperature produces upon it.

Warmth at first increases the action of the vessels of the skin, causes a more considerable efflux of perspirable matter; the skin is sensibly reddened; and, if the heat is increased still further, inflammation, blistering, contraction, wrinkling of the tissue, and blackening, with disorganisation, ensue.

Cold at first stimulates the skin—reddens it; continued, the vessels contract, the rete mucosum no longer circulates its fluid, perspiration is no longer evolved, the skin becomes pale, and if the cold is increased in intensity, loss of feeling, and death of the part, if not of the individual, ensues.

(To be continued.)

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The Members and Friends of the Practitioners and Agents' Society, in connection with Dr. COFFIN, are respectfully informed that the seventh Annual Meeting of the Society will be held at the Freemasons' Tavern, Great Queen Street, London, on Tuesday, the 3rd day of August, next, 1858, when all the Friends are requested to attend as business of importance will be laid before the Meeting.

On behalf of the Committee,
J. THOMAS, SECRETARY.

7, *Hinde Street, Newcastle-on-Tyne,*
July 1st, 1858.

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In No. 255 of our Journal, an advertisement of Mr. Brockies appeared, announcing his being the only Accredited and Authorised Agent for East and West Hartlepool. Our Editor, not knowing that

CAPTAIN JOHN NAYLER,

of St. Hilda-street, Old Hartlepool, was Accepted Agent for West Hartlepool, allowed its insertion. Captain John Nayler not only was our Agent in 1850, but also is our Accredited Agent for West Hartlepool, who continues to dispense all the Herbs, Roots, Barks, Powders, &c., used in Dr. COFFIN'S Medico-Botanic System of Medicine, of whom also may be obtained all Dr. COFFIN'S Medico-Botanic Works.

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"Human experience, which is constantly contradicting theory, is the great test of truth."—Dr. Johnson.

No. 267—Vol. VIII. SATURDAY, AUGUST 7, 1858. Price 1d.

TO OUR FRIENDS AND PATRONS.

On the monetary affairs appertaining to the founding of the Botanical Hospital.

We inform our friends and patrons, that, as Editor of the Botanical Journal, Dr. Coffin has shewn us the account of all the moneys received for the Botanical Hospital, a statement of which, up to the present time, we subjoin:—

Subscriptions received from various sources	£160	
Dr. Coffin's gift		50—210
Funds in Sheffield not yet received by Dr. Coffin	50	
Promised by a friend		50—100
Making a present available total of		£310

Besides which, very many friends have promised various sums from £5 up to £20.

It, therefore, now behooves the friends generally to be upon the alert, and to use their strenuous endeavours speedily to obtain all the subscriptions in their power, and also to contribute to the utmost of their means for the furtherance of so valuable an object as the Botanical Hospital. Dr. Coffin wishes us distinctly to state, that unless the contributions are increased sufficiently to guarantee a speedy commencement of the undertaking, he will return all the moneys held by him to the donors, as far as required, or he will, with their consent, appoint a committee to distribute the funds to the poor in medicines.

THE GLEANER, No. 13.

ERECT ATITUDE PECULIAR TO MAN.

The distribution, size, and offices of the muscular masses correspond to the organic arrangements of the skeleton. The lateral and posterior surfaces of the pelvis give origin to the powerful glutei, of which the exterior (glutei magni), exceed in size all other muscles in the body.

The use of the glutei, however, is not confined solely to what the pious Spigelius has imagined; viz., the forming a cushion on which the body may be softly supported, for the purposes of divine cogitation; but they are very important agents in extending the pelvis on the thighs, and maintaining it in that state in the erect position of the trunk. In standing on both feet, the glutei magni fix the pelvis firmly behind, and counteract the natural tendency to fall forwards, which the weight of the head, the usual position of the upper limbs in front of the body, and the prominence of the abdominal viscera, impress upon the trunk. Hence, the bulk and power of these very muscles in the human subject afford a clear proof that man was designed for the attitude on two feet. The other two glutei are not essentially concerned in the attitude of standing on both feet; but they are the principal agents in supporting and balancing the trunk on one foot, by inclining the pelvis over the head of that thigh-bone, on which the body rests, so that the centre of gravity of the trunk may be in a line drawn through that lower extremity. In this case, their exertion counteracts the tendency of the trunk to

fall on that side which is not supported. These muscles are employed in a similar manner in progression: the gluteus magnus balances the pelvis, while one leg is carried before the other, and brought to the ground; and the two others support the trunk laterally, while the limb of the opposite side is in the air.

The gluteus magnus, which is the largest muscle of the human body, is so small and insignificant in animals, that it may be almost said not to exist.

The extensors of the knee are much stronger in the human subject than in other mammalia; as their twofold operation of extending the leg on the thigh, and of bringing the thigh forwards on the leg, forms a very essential part in the human mode of progression. The flexors of the knee are, on the contrary, stronger in animals; and are inserted so much lower down in the tibia, even in the monkeys, than in the human subject, that the cord which they form keeps the knee habitually bent, and almost prevents the perfect extension of the leg on the thigh. Where the thigh and leg thus form an angle, instead of being continued in a straight line, the support of the body on the hind legs must be very insecure.

The extensor muscles of the ankle joint, and chiefly those which form the calf of the leg, are the principal agents in progression. Hence man is particularly characterised by the largeness of his calves; and no animal equals him in this respect. By elevating the os calcis, they raise the whole body in the act of progression; and, by extending the leg on the foot, they counteract that tendency which the weight of the body has to bend the leg in standing. The muscles of the calves lift the heels, and thereby elevate the whole body, which is supported on the astragalus: the weight is thus maintained on the anterior of the feet, and the individual is said to stand on tiptoes. If the foot of one side be lifted from the ground, and the opposite heel be raised by the calf of its own side, the whole body is then elevated by the muscles of one calf. When a person stands on tiptoe with a burden on the shoulders, or on any other part of the trunk, the weight of this, as well as of the body, must be raised and supported by the muscles of the calf. In running, leaping, jumping in the air, dancing, &c., the projection of the body is accomplished by the same power.

Aristotle, and others after him, have justly observed, that calves of the legs can be ascribed to man only.

The whole arrangement of the thorax corresponds to the erect attitude of man. It is flattened anteriorly, possesses a very broad sternum, is wide transversely, but shallow from before backwards. Its lateral width and inconsiderable depth from sternum to spine, not only throw the arms far apart, and thus give a more extensive range to their motions, but diminish that preponderance of the trunk towards the front, which, although it is unimportant in the horizontal, is very inconvenient in the erect attitude. Man is said to be the only animal in which the transverse exceeds the antero-posterior diameter of the chest. Even in the simia satyrus the latter exceeds the former measurement.

The human sternum is short, as well as broad; hence a large space is left between the front of the chest and the pelvis, unprovided with bony supports; the weight of the viscera, which are sufficiently guarded by the abdominal muscles, is securely sustained below by the ample pelvis.

Quadrupeds have a thorax compressed laterally, narrow and keel-shaped on its sternal aspect, consequently deep from sternum to spine, but confined in the transverse dimension. This structure, with the absence of the clavicles, allows the front legs to come near together, to fall perpendicularly under the front of the trunk, and support it with firmness and facility. Their sternum is long and narrow, the ribs advance nearer to the crista of the os innominatum, and together with the sternum, cover a large share of the abdomen, and support its viscera more effectually in the horizontal position of the trunk. For the same purpose, too, the ribs in many cases are more numerous than in man; viz., thirty-two in the hyena, thirty-six in the horse, forty in the elephant, and forty-six in the unau (Bradypus didactylus).

These, with other points which cannot escape observation when the skeleton of any rather long-legged quadruped is

compared to that of man, shew how unfit he is for the attitude on all-fours, which in his case can never be otherwise than unsteady, irksome, and fatiguing in the highest degree.

The spine of man presents some important peculiarities resulting from his characteristic attitude. One of these is its very remarkable increase of size in the lumbar region — an augmentation corresponding to that of the superincumbent weight, and to the magnitude of the efforts which this part has to sustain. The immense bulk of sacrum, far exceeding, in proprotion to the rest of the body, that of any animal, is referable to the same cause, to the mode in which this weight is transmitted to the hip-bones, and thence to the lower limbs, and to the peculiar construction of the pelvis. The waving line of the column, arising from a series of alternate curves in opposite directions, is altogether peculiar to man; it allows a proper distribution of the weight with respect to the centre of gravity, the line of which, carried through the entire trunk, must fall within the space covered by the feet, or by one foot when we support the body on one only. As this line passes through all the curves, motion is allowed in the upper regions without impairing the general equilibrium.

The cervical vertebræ of the monkeys, including the satyrus and troglodytes are remarkable for the length and prominence of the spinous processes—a peculiarity probably connected with the support of the head, which preponderates in front, in consequence of the elongation of the jaws and the retreat of the occipital condyles backwards.

I have explained how the lower extremities afford a sufficient base of support and solid columns to sustain the trunk, and how the same point is secured by the organic arrangement of the latter. The breadth of the human pelvis forms an ample basis for the body, and a firm point of action for the abdominal and other muscles, enabling them quickly to rectify the position of the parts above. In all the digitated animals, the pelvis is so narrow, that the trunk resembles an inverted pyramid: there would be great difficulty in maintaining it in equilibrio, even if it were possible for the animal to assume the erect position. In those instances where the pelvis is broader, as in the hoofed animals, the other conditions of the upright stature are absent. The bear, however, forms an exception to these observations, and may be taught to stand and walk erect, although the posture is manifestly irksome to the animal.

When quadrupeds endeavour to support themselves on the hind extremities, as for the purpose of seizing any objects with the forefeet, they rather sit down than assume the erect position, for they rest on the thighs as well as on the feet; and this can only be done where the forepart of the body is small, as in the simiæ, squirrel, &c. In other cases the animal is obliged to support itself by the forefeet also, as in the dog, cat, &c.

A REVIEW OF THE OLD SCHOOL PRACTICE OF PHYSIC.

BY J. NADEN, SHEFFIELD.

(Continued from page 332.)

Every age and every civilised country has had its champion to battle with—error, ignorance, and superstition on the one hand, and self-interest on the other; and if the masses, not the middle or the higher classes, but the intelligent working men and women, could be brought to hear the truth expounded, and error exposed, success would ultimately attend the labours of those who have the moral courage to combat error. It is now some fifteen years since Dr. Coffin took his stand in opposition to the array of medical men, and the mistaken notions of the people that bleeding, blistering, starvation, and poisonous drugs are necessary. The medical profession laughed at his announcements; the people were taken by surprise; but truth prevailed, and the profession have been compelled, by the force of public opinion, to abandon, to a great extent, the idea, that the more dangerous the means used to cure the sick, the more scientific it became. The stand we take is based upon the laws of science and the love of our fellow men. In proof of this, we will quote cases from the opposition side, to prove our assertion. We will take blood-letting, for example. It is an acknowledged fact, that from the blood

we derive all our support, and to take that from us which gives us life, must debilitate the system, impair the functions of the vital organs, and lay the foundation of obstinate and incurable diseases; for all the secretions are derived from the blood, as the bile, saliva, and gastric juice, and the minutest parts of the body, whether they consist of bone, cartilage, muscle, tendon, ligament, or any other substance or tissue. It is also the medium by which heat is diffused throughout the system, imparting to it the necessary degree of warmth in all the changes and vicissitudes of climate. Should the brain, through a failure of the action of the heart, cease, even for a moment, to receive its accustomed supply of blood, a state of unconsciousness would be the immediate result. M. Louis, one of the great medical luminaries of Paris, has published a work on the effects of blood-letting in some inflammatory diseases, which shows that he does not esteem the lancet so highly as some of his contemporaries. In his remarks upon blood-letting (in inflammation of the lungs and pleura), he says: "The cases I am about to investigate are seventy-eight in number, twenty-eight of them proved fatal, and all (mark this!), were in a state of perfect health at the time when the first symptoms were developed." M. Louis has furnished a table showing the effects of blood-letting, when commenced on certain days after the first appearance of the disease. I shall here give the results fully, because many of the readers of this Journal have not an opportunity to peruse the medical works. The first patient was bled once, and the disease lasted thirteen days; the second was bled twice, and the disease lasted sixteen days; the third three times, and the disease lasted twenty-three days; the fourth five times, and the disease lasted thirty-five days. It will be seen from this, the disease became obstinate in proportion to the number of bleedings. Speaking of the successful cases out of the seventy-eight, had but a limited influence on the course of the disease. Pain, says Mr. Louis, was not arrested by blood-letting in any of the cases bled within the first four days of the disease; on the contrary, it was generally increased during the first twelve or twenty-four hours, and its mean duration, in proportion to that of the disease, was from six to eight days, according as the patient was bled early or late in the malady. He adds, it was still present on the sixth day in a patient who was bled on the second day, and in this case, fifty ounces of blood were abstracted by two venesections within forty-eight hours, and on the fourth day, five or six ounces more by the application of twenty leeches over the painful part. It has very little influence on the progress of quinsy, erysipelas of the face, and inflammation of the lungs, and that its influence is not more evident in the cases bled copiously and repeatedly, than in those bled only once, and to a small amount. In a word, we are led to infer that blood-letting is neither of much utility in the beginning, middle, nor towards the close of inflammatory disease. The author also remarks, "that in the hospital, in particular, he has employed blood-letting in a great many cases of inflammation of the lungs, to the extent of twenty to twenty-five ounces, and more, even to fainting, and yet he has never in a single case seen inflammations arrested. "Convulsions," says Dr. Hall, of London, "are not unfrequently the immediate result of blood-letting." Majendie, who has blended theory with practice, says, "I bleed my patients very little, and I do not see that they fare a whit worse than my neighbours;" and in proof, I will give you his experiments: he says, "here is the animal I pointed out to you in my last lecture as being affected with commencing ophthalmia (inflammation of the eye), and as presenting hemorrhagic spots on the skin where the hair had fallen off. (The animal, it will be borne in mind, had been bled.) To-day the eyes are in a more advanced stage of disease—the left is unfit for exercising vision. The ulcerations I showed you have extended more deeply; perforation of the cornea (one of the external membranes of the eye) is perceptible in two or three places, the aqueous humour (one of the fluids of the eye) has disappeared; do you suppose, that by applying leeches round the orbit of the eye, we should have succeeded in

modifying the pus-like secretions, and arresting the progress of disorganisation? No; so utterly absurd does the notion appear to me, that I would not so much as make a trial: nevertheless, the very treatment which I am unwilling to try on brutes, is daily had recourse to in the case of the human subject. Again," he says, "several blood-lettings have been practised on this greyhound, and the blood, after having been deprived of its fibrine, reinjected; besides the usual phenomena in such cases, the skin, which was perfectly healthy when we commenced, presents ulcerated patches of various sizes upon the surface of the body." Dr. Clutterbuck says, "I need only to refer you to the practice of some of our surgeons in the hospitals of London. A case occurred lately where 128 ounces (eight pounds or one gallon), were drawn at one time, in order, by inducing syncope (fainting), to facilitate the reduction of a dislocation of the thigh. The patient lived a week afterwards, and, as is said, died of inflammation of the vein punctured. One of the arguments in favour of blood-letting is, that an individual becomes fat after being bled frequently and in small quantities." Van Sweiten mentions the case of a woman who was bled more than sixty times in one year, and in the mean while became extremely corpulent. It will be seen however that in cases such as the above, there is no actual increase of flesh, but a bloated or dropsical condition of the patient, arising from a derangement of function in the absorbent vessels; and it is well known that dropsies of an inveterate character are frequently the result of copious blood-letting. Professor Lobstein, in his work on blood-letting, says, "Were bleeding and mercury totally prohibited, a great many physicians would find themselves in a sad dilemma—their time easily disposed of. It is astonishing how many physicians have fallen into this extravagance. Blood, as the most precious matter of life, is lavishly squandered away where there is no necessity; yes, often without knowledge for what purport. So far from blood-letting being beneficial, it is productive of the most serious and fatal results. Should I contribute by these remarks to save more lives in future, and arrest this cruel practice, I shall feel that gratification which arises from the consciousness of having performed a good act. How much it is to be regretted that such a scourge should exist! During my residence of fourteen years past in this country of liberty and independence, I am bound to say, that in all my practice of twenty-seven years as a physician, never have I seen in any part of Europe such extravagance of blood-letting, as I have seen in this country. How many of our fellow creatures sent to an untimely grave! how many families deprived of their amiable children! how many husbands deprived of their wives! and how many wives of their husbands, who have fallen victims to the abominable malpractice of bleeding!" Injury can also be done by leeches, as well as the lancet. A child may be bled to death by leeches, says a London physician, and an infant has been known to die under the operation of a single leech. Professor Bigelow used to remark in his lectures, "I have known children to be killed by the bites of foreign leeches." Caution should be observed in their application, as it is extremely difficult to stop the bleeding. The bleeding from leech-bites, says Broussais, in his "Pathology," page 514, is often excessive in infants and young subjects, whose skin is full of blood and the action of the heart energetic. Dr. Marshall Hall of London, in his "Remarks on Blood-letting in Infancy and Childhood," says, "I must for once and for all protest against the usual plan of applying leeches in infancy, and allowing the bites to continue to bleed. Nothing can be more indefinite—nothing more replete with danger; most of all it is dangerous to apply leeches late at night; the bleeding may go on unobserved and unsuspected, and precipitate the little patient into a state of irremediable sinking." It is also admitted that leeches often are the means of carrying one disease to other individuals. Suppose, for instance, a leech is applied to a gangrene wound: it is taken from that person and applied to another person, it will produce a disease of the same character. It is stated by a German author that the loathsome disease, syphilis, was com-

municated to an infant by a leech which had previously been employed on a person suffering from that complaint. A foreign medical journal says, "It is estimated that there are two hundred millions of leeches consumed annually in Europe, independently of those exported to the United States, the cost of which amounts to about two millions of dollars." They are principally imported from Hamburgh, and are procured from the North of Europe. The people pay dearly for having their lives and health destroyed. Let the readers of the Botanical Journal peruse this subject carefully over, and where there is a family of children put it into their hands, and thus be the means of saving many a lovely child from an early grave.

(To be continued.)

CURE OF A SEVERE CASE OF SCURVY.

TO DR. COFFIN.

SIR,—For the benefit of suffering humanity I trust you will make my case public. I was labouring under severe scurvy; my head and chest were one continued scab; one of the regular faculty (our family doctor) attended me for six weeks. After taking bottles of mixtures and purgatives to a great extent, and applying cooling lotions to no purpose, I found myself reduced to such a state of weakness, that I was scarcely able to stand, and incapable of turning my head. Being tired of this treatment, I resolved to try your agent, Mr. William Anderson, who stated my case to be a bad one, though he had known such cases soon to give way under Dr. COFFIN'S Medico-Botanical system, and that he would take my case in hand if I would strictly take the medicines he prescribed and attend to his directions. This I did; and at the end of two months, to my great delight, I was perfectly cured; indeed, it appeared to me to be almost miraculous, the state I was in being so shocking. You not only demand my gratitude, but the grateful thanks of all, for your making known to the world your inestimable system; and your agents are worthy of all praise for their successful application of that system in the cure of disease.

May this lead all who read to resort to your system for relief, and may it ever flourish!

My best thanks are due to Mr. Anderson for his kind and unwearied attention; and in sincerely hoping that you may be long spared to see the blessings you have conferred, I am, Sir, your humble servant,

SUSAN PARKIN.

Shotton Colliery, near Durham,
July 22nd, 1858.

MORVEAU'S PRESERVATIVE PHIALS.

THE portable phial contrived by Morveau for preventing contagion, is thus prepared:—Put forty or fifty grains of black oxide of manganese in a small, *strong* glass phial, with an accurately ground stopper, to which must be added about two drachms of nitric acid, by measure, of about 1.4 specific gravity, and an equal measure of muriatic acid of about 1.134 specific gravity; the stopper is then to be replaced, and the whole secured by enclosing the phial in a strong wooden case, with a cap which screws down so as to keep the stopper safe. It is to be used in hospitals or other places of infection, or in the chambers of those afflicted with typhus fever, by simply opening the phial with the face turned away from it, and replacing the stopper soon after the smell of the oxymuriatic gas is perceived. A phial of this kind, properly prepared, may be used several years without losing its effect; the mixture, however, ought not to occupy more than *one-third* of the phial.

When a prepared phial of this kind is not at hand, the baneful effects of infectious disease may be prevented by the following expedient:—Mix a few ounces of the pulverised black oxide of manganese and common salt upon a plate, let the plate so charged be put in the house suspected to be infected, and occasionally sprinkle a little sulphuric acid or oil of vitriol upon the mixture, which will disengage a sufficient quantity of oxygenised muriatic acid gas to neutralise the putrid miasmata, and render the place salubrious. When this method is adopted in apartments which are inhabited, it will be necessary to add the sulphuric acid only, a few drops at a time, with the face turned away. This is very efficacious.

STATISTICS OF MEDICAL BOTANY.—REGISTER SHEET.

(Continued from page 214.)

DEAR SIR,—In accordance with a request contained in the Journal, I have forwarded you a few cases that have come under my own care during my practice in the Botanic System of medicine. They perhaps are not so numerous or important as some that may be sent; nevertheless they have been interesting to the parties who have received the benefit, particularly so as some of them had withstood the remedies of the regular practitioners for a considerable time, and had been a great inconvenience and expense to the sufferers.

Name and Residence.	*Cured in*	*Ailments.*	*Previous Medical Attendants.*	*When came under Bot. Treat.*	*Present state of Health.*
Mrs. Sutton, Ettingshall.	One month.	Chronic affection of the liver.	Several.	January 8th, 1856.	Very good.

GENERAL REMARKS.—This lady had suffered from the above complaint, with a dull, fixed pain in the region of the liver, for ten or twelve years, during which time she had tried various remedies without the slightest relief. I at once ordered a sweat every night in bed for a week. This, she said, would be a difficult matter, as she had not had copious perspiration for years, although she had taken medicine to effect it; however, by the use of yarrow tea and cayenne, with hot bricks to the feet and sides, I produced one the first night: this was followed up with an emetic of LOBELIA every other night, which soon relieved the pain; and these, with the remedies prescribed in the "Guide to Health," and the liver pills, which corrected the stomach and stimulated the action of the liver, and made the cure complete. She said she was in a better state of health, and more able to attend to domestic affairs, than she had been for about fifteen years.

William Jones, Parkfield.	Nine days.	Inflammation of the bladder.	Club doctor.	January 28th, 1856.	Quite well.

GENERAL REMARKS.—When I was called to see this case, the club doctor had been tinkering for about a week, the poor man still getting worse, and suffering the most excruciating pain, with a complete stoppage of the water, the bowels obstinately costive, not having been moved for two or three days; and, to increase this, the doctor was giving large quantities of opium, to compose the system, and quell the efforts of nature, instead of assisting her, to throw off the disease. I at once saw there was no time to waste, and commenced operations according to Dr. COFFIN'S "Guide to Health," using the fomentation and injection, which produced a motion of such a nature as astonished all who were in the house, and only for which I believe mortification would speedily have ended his sufferings. I then produced perspiration, and gave him the usual remedies, and in nine days the man was at his work again. I forgot to say he had been leeched pretty well before I commenced.

Joseph Caunt, Lane Head, near Willenhall.	One month.	Wound in the hand.	None.	November 14th, 1856.	Quite well.

GENERAL REMARKS.—This was one of the worst wounds I ever saw. When I tell you how it was done you will judge of its nature. The party was helping to unload a railway truck full of slack, which, by being lifted up at one side, shot out at the other. When nearly up, the weight overpowered the men, and it came back on the patient's hand. It completely stripped the flesh off the forefinger; cut open the palm of the hand, right up to the centre, so as to expose the bone, and breaking the bone of the forefinger just above the first joint. I was just upon the spot at the time, and procured a bucket of hot water, in which I immersed the hand, and gave him a cup of hot composition and valerian to drink. This done, I commenced operations according to the "Guide to Health," applied some good adhesive plaster to bring the edges together, and splinted it with two small pieces of wood to keep the bones in their proper places, and an elm poultice outside completed the dressing. Under this treatment the pain soon subsided, and in sixteen days he was so far recovered as to be able to resume his employment; and in a month was entirely well, to the astonishment of all who saw it. About the same time a poor miner had the misfortune to get his finger broke, and was attended to by the field doctor. This person carried his hand in a sling for a month, and then was as much longer before he was able to attend his usual employment, although treated by an M.D. *What a contrast!* The person will answer any inquirers.

STATISTICS OF MEDICAL BOTANY—*Continued.*

Charles Littlewood, Birchills, near Walsall.	Three weeks.	Broken thumb.	None.	April 7th, 1856.	Quite well.

General Remarks.—This was a little boy, who, playing at some ironworks in the neighbourhood, put his hand on a water cistern; at the same time another boy dropped a bar of iron on his thumb, below the first joint, fracturing the bone from one joint to the other, the thumb only adhering by a small bit of skin. I at first advised the mother to go to a surgeon and have it cut clean off, but she earnestly requested me to do something for him to save the thumb; so I took a small pair of scissors and opened the flesh, replaced the shattered bone, and brought it well together with adhesive plaster, then two splints of wood and an elm poultice. Next day I dressed it again, putting a gutta percha splint and healing salve. It healed by the first intention, and in one week I took everything off it, and he could move it with all freedom. And although these were small bones to set, I believe Medical Botanists may be able to set the larger ones quite as easy, on the same principles; *that is*, following out the advice laid down in Dr. Coffin's "Guide to Health." This is decidedly the best plan I have ever seen or read of; and the beauty of it is, it is simple, safe and certain. By relaxing the parts, there require no pulley-blocks to stretch the muscles, nor chloroform to put the patient to sleep, nor opium to stupify the senses: all that is required is faith in the means, and a calm determination to follow out the principles of the system we advocate; and, as we cleave to this, so will our success be in practice, for I firmly believe Medical Botany is calculated to cure all diseases that are by any means curable. Hoping you will find room for the above in the Journal, if you think them worthy,

I remain, dear Sir,
Yours respectfully,
W. Hodgkiss,
13, *Stafford-street, Walsall.*

ON ABSORPTION AND SANGUIFICATION.

OF ABSORPTION FROM THE DIGESTIVE CAVITY.

(From "*Carpenter's Physiology.*")

So long as the alimentary matter remains in the digestive cavity, however perfect may be its state of preparation, it is as far from being conducive to the nutrition of the system, as if it were in contact with the external surface. It is only when absorbed into the vessels and carried by the circulating current through the very substance of the body, that it becomes capable of being appropriated by its various tissues and organs.

In man, as in nearly all vertebrated animals, a set of vessels is interposed between the walls of the intestine and the sanguiferous system; for the purpose, as it would seem, of taking up certain components of the nutritive matter, of which, part at least, are not in a state of perfect solution, and of preparing them for being introduced into the current of the blood. These are the *absorbents* of the intestinal walls; of which those that are found after the performance of the digestive process to contain the white, opalescent fluid known as "chyle," are distinguished as *lacteals;* while the remainder, like the absorbents of the system generally, are known as *lymphatics.* The distinction is a purely artificial one; for the "lacteals" are the "lymphatics" of those parts of the intestinal walls which they supply, as is shown by the fact, that, during the intervals of the digestive process, they contain a transparent fluid, in all respects similar to the "lymph" of other parts.

The absorbents form a minute plexus (network), beneath the mucous lining of the alimentary canal, along its whole extent; but in the small intestines they enter the villi (hair-like filaments), at the extremities of which indeed they may be said to commence. Those only are intitled to the designation of "lacteals" which originate from the intestinal canal below the point at which the biliary and pancreatic ducts pour their contents into it; for about that point, the fatty constituents of the alimentary matter are not in a state of sufficiently

fine division to enter them; and the absorbed fluid is consequently pellucid instead of possessing the milky aspect.

Thus, then, we are to consider the *lacteal* portion of the absorbent system to be that part of it which is specially adapted, by its prolongation into the villi, for the reception of an oleaginous fluid, which is taken up from the contents of the alimentary canal and prepared for entrance into the absorbents.

The *villi* are extensions of the mucous lining of the intestinal canal, which thickly beset its surface from the pyloric orifice to the cæcum; that is, through the entire length of the small intestine to which they are limited in man.

That absorption is effected to a very considerable amount by the agency of the blood-vessels, is shown, first, by the readiness with which aqueous fluids, and even alcohol, are taken up from the parietes (walls) of the stomach and are carried into the circulation. Thus, in a case of extraversion of the bladder, in which the urinary secretion could be collected immediately on its passing from the kidney, when a solution of ferrocyanide of potassium was taken into the stomach, this salt was detected in the urine, in one instance within one minute, and in three other instances, within two and a half minutes. In all these cases, however, the stomach may be presumed to have been empty, and the vascular system in a state of aptitude for absorption, since the experiments were made either after a long fast or at least four hours after a light meal; when, on the other hand, the salt was introduced into the stomach soon after the ingestion of alimentary substances, a much longer period elapsed before it could be detected in the urine: thus, when a substantial meal had been taken two hours previously, the interval was twelve minutes; when tea and bread and butter had been one hour previously taken, the interval was fourteen minutes, a similar meal having been taken twenty-four minutes previously, the interval was sixteen minutes; when only two minutes had passed since the conclusion of such a meal, the interval was twenty-seven minutes; and when a solid meal had been concluded just before the introduction of the salt, the interval was thirty-nine minutes.

These facts are of great importance in showing the very marked influence which the state of the *stomach* exercises upon the absorption of matters introduced into it. Not less important, however, is the state of the *vascular system* in regard to fulness or emptiness; for it was found by Majendie, that when he had injected a considerable quantity of water into the veins of a dog, poison was absorbed very slowly; whilst if he relieved the distension by bleeding, there was speedy evidence of its entering into the circulation. The rapidity with which not only aqueous but alcoholic liquors introduced into the stomach may pass into the general circulation, has been shown by the experiments of Dr Percy, who found that, when strong alcohol was injected into the stomach of dogs, the animals would sometimes fall insensible to the ground immediately upon the completion of the injection, their respiratory and cardiac movements ceasing within two minutes; and that, on post-mortem examination in such cases, the stomach was nearly empty, whilst the blood was highly charged with alcohol; thus rendering it almost certain, that not merely the final destruction of nervous power, but the immediate loss of sensibility, was due to the action of alcoholised blood upon the nervous centres. Finally numerous experiments have been made by various physiologists, which have demonstrated that absorption of alimentary and other substances may take place from the walls of the stomach, those substances having been prevented from passing into the intestine by a ligature round the pylorus.

Now, as the absorbent system does not present that peculiar arrangement in the coats of the stomach which it does in those of the intestinal tube, there can be little doubt that the introduction of such substances into the system must be effected chiefly, if not entirely, through the medium of its sanguiferous capillaries.

That the blood-vessels of the intestinal tube also largely participate in the introduction of soluble alimentary matter into the system, has been clearly proved by various observations upon the constitu-

tion of the blood of the mesenteric veins, these having shown, that after the digestion of albuminous and farinaceous or saccharine substances, albuminose, dextrin, grape sugar, and lactic acid, are detectable in that fluid, whose usual composition is greatly altered by the presence of these substances, as well as by the augmented proportion of water which it contains. Moreover, it is asserted by Bruch, that so large a quantity of fat is absorbed into the blood-vessels, that the superficial capillary network sometimes presents an opalescent whiteness; and this fact is in harmony with the result experimentally obtained by Matteucci, who found that a weak alkaline liquid will draw to itself through a thin, membranous septum oleaginous particles diffused in a state of fine division through a liquid on the other side.

We may consider the sanguiferous vessels, then, as affording the usual channel by which a large part of the nutritive materials are introduced into the system; but these are not allowed to pass into the general current of the circulation until they have been subjected to an important assimilating process, which it appears one great office of the liver to perform, whereby they are rendered more fit for the purposes they are destined to perform in the economy.

But the absorbent power which the blood-vessels of the alimentary canal possess is not limited to alimentary substances; for it is through them, almost exclusively, that soluble matters of every other description are received into the circulation. This, which may now be considered a well established fact, was first clearly shown by the carefully conducted experiments of MM. Tiedemann and Gmelin, who mingled with the food of animals various substances, which by their colour, odour, or chemical properties might be easily detected in the fluids of the body. After some time, the animal was examined; and the result was, that unequivocal traces of such substances were not unfrequently detected in the veinous blood and in the urine, whilst it was only in a very few instances that any indication of them could be discovered in the chyle.

This absorption by the blood-vessels is a simply *physical* operation, depending upon the relative consistency and miscibility of the blood and of the liquids to be absorbed, and upon the rapid movement of the blood through the vessels. Where the contents of the alimentary canal are of less specific gravity than the blood, and are capable of readily mingling with it, a current will be established through the delicate parietes (walls) of the blood-vessels and their thin investments, between the two liquids, the former passing towards the other; and in this mode, albuminous, gelatinous, saccharine, saline, and other soluble substances may be caused to enter the blood, if their solution be not too concentrated. But if their density be equal to that of the blood, or nearly so, little or no absorption is likely to take place; and one purpose which is answered by the very copious discharge of aqueous fluid into the alimentary canal, during the operation of digestion, is obviously the reduction of the density of the solution to a favourable point. If, again, the density of the contents of the alimentary canal should exceed that of the blood, a current might be established in an opposite direction; but their dilution probably would be effected so speedily that little of the contents of the blood-vessels would be thus drawn forth, more especially as animal membranes appear to have a special power of resisting the passage of albumen, whilst they give free transmission to albuminose.

It is a very remarkable fact, that not merely soluble matters, but insoluble substances, in a state of minute division, may find their way from the alimentary canal into the current of the circulation: thus, particles of finely divided charcoal have been distinguished in the blood of the mesenteric veins, as also sulphur and starch.

(To be continued.)

ELECTRICITY.

The effects of electricity on the human frame are very apparent; but it is not only when it strikes some victim to the ground, that its power is acting upon us. We are constantly exposed to its effects, in every shade of degree. At the approach of the thunder-storm, and still more during those electrical states

of the clouds which so often occur without any violent explosion, men and animals are affected with peculiar sensations—uneasiness, heaviness, torpor, headache; and at such periods persons of certain nervous temperaments cannot move out without danger to their health. Such is the effect of electricity upon the animal economy, that when the nerves which supply digestive energy to the stomach are cut and separated from the source of nervous power, the arrested digestion of the animal can be continued by application of the galvanic current. Even after death, electricity exerts a wondrous power. Criminals recently executed are thrown into the most fearful contortions by the use of the galvanic battery; bedridden patients, long labouring under most distressing and positive forms of disease, are reported to have been cured by the descent and consequent shock of the electric fluid, falling in the room they inhabited. In this manner, in 1762, a bedridden Kentish shepherd, palsied by an apoplectic seizure, suffering constantly from palpitations, convulsions and vertiginous sensations, was suddenly cured by an electric shock he experienced in his bed.

CAUSES OF DISEASES.

The accumulation of numbers in large cities, the noxious effects of impure air, sedentary habits, and unwholesome employments—the excesses in diet, the luxurious food, the heating drinks, the monstrous mixtures, and the pernicious seasonings, which stimulate and oppress the organs—the unnatural activity of the great cerebral circulation, excited by the double impulse of our luxurious habits and undue mental exertions, of the violent passions which agitate and exhaust us, the anxiety, chagrin, and vexation, from which few entirely escape, and then re-acting on and disturbing the whole frame—the delicacy and sensibility to external influences, caused by our heated rooms, warm clothing, inactivity, and other indulgencies—are so many fatal proofs that our most grievous ills are our own work, and might be obviated by a more simple and uniform way of life. Our associates of the animal kingdom do not escape the influence of such causes. The mountain shepherd and his dog are equally hardy; and form an instructive contrast with a nervous and hysterical fine lady and her lap-dog.

THE EFFECT OF OXYGEN ON THE BLOOD.

To prove that oxygen gas is really imbibed by the blood in the lungs, Dr. Goodwin opened the chest of a living dog, and exposed the lungs and heart to view. It was a striking spectacle to observe the *black* blood, in its return from the lungs, and in its passage to the heart, change to a bright *vermilion* colour. As the dog became exhausted by the pain which the wound occasioned, it was found necessary to inflate the lungs by artificial means. When this was omitted, the blood received by the heart was black, and in a little time its action ceased. But when the lungs were again made to collapse and distend, by the inflation of common air, the blood in the pulmonary vessels regained its former *crimson* colour, and the action of the heart and arteries was excited anew.

MISCELLANEOUS MEASURES AND THEIR EQUIVALENTS.

Teaspoonful	average	1 fld. dr.
Desert do.	,,	2 ,,
Table do.	,,	4 ,,
Wineglassful	,,	2 fld. ozs.
Teacupful	,,	5 ,,
Breakfastcupful	,,	8 ,,
Tumblerfull	,,	8 ,,
Basinful	,,	12 ,,
Thimbleful	,,	$\frac{3}{4}$ fl. dr.
Pinch of leaves or flowers	,,	1 dr.
Handful	,,	10 ,,

To secure sleep, that most necessary appendage to health and to happiness, the mind must be tranquil, its powers moderately used, but not overworked, and its several faculties kept in proper subjection to one another; the muscles of voluntary motion must be exercised; the stomach kept free from disturbance; the circulating and respiratory organs, the functions of secretion and excretion, all perform their several duties; the bed-room should be well ventilated and cool, the bed somewhat hard, the head well elevated, the feet kept warm, the bed-clothes sufficient to maintain bodily heat without unduly confining it, the room should be dark, and the silence perfect.—*Dr. Robertson.*

NOTICE.

Dr. COFFIN may be consulted gratis, as usual, every Saturday evening, from four to eight o'clock, at the Botanic Establishment, No. 24, Union-street, East, Spitalfields. *Patients not admitted to the waiting-room after eight o'clock.*

Dr. COFFIN may also be consulted at his residence, 24, Montague Place, Russell-square, daily *(Sundays excepted)*, from one to two o clock (fee one guinea), on any day except Monday, on which day the fee will be five shillings only.

Advice gratis, every morning, from ten to one o'clock, at the establishment, No. 134, High Holborn, nine doors from New Oxford-street, nearly opposite the London and Westminster Bank, Bloomsbury Branch.

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No. 268—Vol. VIII. SATURDAY, AUGUST 21, 1858. Price 1d.

THE GLEANER, No. 14.

ON TABLE TURNING, TALKING, RAPPING, ETC.

(From "*Carpenter's Physiology.*")

Table turning and talking, when rightly analysed, prove to be among the very best examples of the reflex operation of the cerebrum that are exhibited by individuals whose state of mind can scarcely be considered as abnormal (irregular). The facts, when stripped of the investment of the marvellous with which they have been too commonly clothed, are simply as follows:—A number of individuals seat themselves round a table, on which they place their hands, with the idea impressed on their minds that the table will move in a rotatory direction, either to the right or to the left according to agreement. The party sits with the whole attention fixed upon the table, and looking eagerly for the first sign of the anticipated motion. Generally, one or two slight changes in its place herald the approaching revolution. This tends still more to excite the eager attention of the performers, and the actual turning begins. If the parties retain their seats, the revolution only continues so far as the length of their arms will allow; but not unfrequently, they all rise, feeling themselves obliged (as they assert) to follow the table; and from a walk, their pace may be accelerated to a run, until the table actually spins round so fast that they can no longer keep up with it. All this is done, not merely without the least consciousness on the part of the performers that they are exercising any force of their own, but for the most part under the full conviction that they are not. Now the rationale of these and other phenomena of the like kind, is simply as follows:—The continued concentration of the attention upon a certain idea gives it a *dominant power*, not only over the mind, but over the body; and the muscles become the involuntary instruments whereby it is carried into operation. In this case too, as in that of the divining-rod, the movement is favoured by the state of muscular tension, which ensues when the hands have been kept some time in a fixed position; and it is by the continued influence of the dominant idea, that the performers are impelled to follow (as they believe) the revolution of the table, which they really sustain by their continued propulsion. However conscientiously they may believe that the attraction of the table carries them along with it, instead of an impulse which originates in themselves, pushing along the table, yet none feels the least difficulty in withdrawing his hand, if he really *wills* to do so. But it is the characteristic of the state of mind from which ideo-motor actions proceed, that the volitional power is for the time in abeyance, the whole mental power being absorbed (as it were) in the high state of tension to which the ideational consciousness has been wrought up. To this *rationale*, all the results of the variations that have been, from time to time introduced into the experiment are perfectly conformable, it having been always found, that when any method was employed under the conviction that the process would be favoured

by it (as when, during the reign of the electrical hypothesis, the feet of the table were insulated, or a continuous circuit was made by the hands of the performers), the expectation thus excited brought about the result at an earliar period than usual.

The application of the same principle to the ordinary phenomena of "table-talking," is so obvious as to need no lengthened exposition. There can be no reasonable doubt, that these phenomena have been manifested in a large number of instances through the agency of individuals who would not wilfully be parties to deception of any kind, and that the movements which they involuntarily gave to the tables, were the expressions of the ideas with which their own minds were possessed as to what the answers should be to the questions propounded. It is asserted, however, that the talking tables often give true answers to questions proposed to them, as to matters of fact that none of the parties present may have any knowledge of what the answers should be; but this, if it be really so, is not only far from being opposed to the physiological doctrines here advanced, but affords a curious illustration and extension of them; for, as there is no doubt that impressions once made on our consciousness, though subsequently entirely lost to it, may direct our trains of thought in delirium and dreaming, or may even, as in somnambulism, govern our actions, so does it seem quite reasonable to attribute the muscular movements by which the table is made to answer to impressions left by past ideas upon the cerebrum on which it reacts by an operation analogous to the "unconscious cerebration" already described, so as to work out results through the muscular system, of whose source, within himself, the operator is ignorant, as he is of his exercise of nerve-force in calling the muscles into contraction.* The truth of this view has been tested by experiment so varied as to exclude all possibility of influence from such latent ideas, and it has been found that the table could reveal nothing whatever.

* The following is a remarkable example of this kind of action, which is detailed in the Rev. R. W. Dibdin's Lecture on Table-turning. A gentleman, who was at the time a believer in the spiritual agency of his table, supposed himself to be in communication with Edward Young, the poet. The spirit having been desired to prove his identity by citing a line of his poetry, the table rapped out, "Man was not made to question, but adore;" being asked whether the line was in the "Night Thoughts," the spirit replied (through the table), "No."—"Where is it then?" "The reply" was, "Job." Not being familiar with "Young's poems," the questioner did not know what this meant, but the next day he bought a copy of the book, and at the end of the "Night Thoughts" he found a paraphrase on Job, the last line of which is that just cited. Of course he was very much astonished that this should have been enunciated by the table; but some time afterwards he found that he had had the book in his house all the time, and that he had read the book before, so that the remarkable line with which the paraphrase of Job closes had doubtless left behind it a cerebral impression, which, being called into activity by an appropriate suggestion, occasioned the same effects upon his muscular movements as if the remembrance of it had been actually present to his consciousness.

ON THE SKIN IN CONJUNCTION WITH BATHING.

(Continued from page 335.)

This supposes that the individual does not change his medium, that the skin is still surrounded with air. The effect of water is somewhat different. If the body is in a state of vigour, and in full possession of its heat, the skin being unchilled, the effect of immersion in warm water is much the same as that from moderate heat, applied in other ways, except that the breathing is somewhat more laborious, and that the skin more actively pours out its secretions. The effect of immersion in cold water, under the same circumstances, is at first a rapid chilling, varying in degree according to the powers of the system, the fulness or emptiness of the stomach, the previous heat of the body, and the temperature of the water. This, if all things are favourable, is speedily followed by a brisk reaction, the body rapidly regaining its temperature; and if now the person leaves the bath, before the heat has once again begun to diminish, and has his surface instantly protected with clothing, the consequent effects are, a much increased

action of the vessels of the skin, and a relative increase of the amount of its secretions, and a relative increase of its temperature.

This does not, however, include the whole difference between the effects of hot water and those of cold. The cold water not only clears the surface of its scurf and of its unctuosity as thoroughly as the hot water does, but it has this further effect—the vascular excitement into which the hot water throws the skin, and especially the rete mucosum, is readily and easily checked by cold air, or any depressing influence, acting either on the heart's action, or on the skin itself; whereas the vascular excitement into which cold water throws these textures is rather increased by cold air, is less liable to be materially or suddenly lessened by any depressing influence.

I have said that the first effect of cold water on the skin is that of rapidly chilling it. Cold water acts on its vascular system as a direct sedative, checking its circulation and stopping its secretions and throwing a large quantity of blood on the internal organs. If the water is not extraordinarily cold, and the powers of the heart and arteries are in full vigour, they are roused by this sudden rush of blood into extraordinary exertion, and, driving the blood back again to the skin, cause its circulation to be resumed with even unwonted briskness; the warmth of the surface is restored, and reaction has taken place. This state of things will continue a longer or shorter time, according to circumstances, and then the heart and arteries become no longer able to counteract the cooling effects of the cold water—they are overpowered—and, no longer able to dispose of the quantity of blood, which the rapidly refrigerating powers of the water is constantly throwing back upon them, they become loaded with blood, their action becomes oppressed and less energetic, the skin is now once more chilled, its circulation is once again languid; shiverings, loss of feeling, stupor, and, the cause still continuing, death ensues.

In order that the heart and arteries be able to repel the blood again to the skin, which the immersion in cold water had thrown upon them, several conditions are necessary. Let us now glance rapidly at each of these.

1st. The water should not be extraordinarily cold: this must vary according to the circumstances presently to be mentioned; but, generally speaking, the temperature of the water should not be lower than sixty degrees. The heat of the body being generally about ninety-six degrees, a bath, even at the temperature of eighty degrees, will usually at first feel somewhat cold to the bather. But it must not be forgotten, that, provided speedy reaction does come on, and provided there is no organ or function in such a state as to be injured by the influx of blood, the colder the water, within certain bounds, the greater, and more genial, and more beneficial will be the reaction.

2nd. As to the length of time a person should remain immersed. The colder the water, the shorter time should the immersion continue. It is seldom prudent to remain longer in a cold bath than ten or fifteen minutes. The invalid should hardly continue in it so long as that.

3rd. The effect will vary according to the degree of energy with which the heart and arteries are acting at the time. There cannot be a more dangerous nor more imprudent practice than cold bathing while the body is fatigued, no matter how, whether from excessive muscular action, or from heat; whether it be the consequence of high mental excitement, or of long-continued mental exertion, or loss of sleep, or however else brought about. The heart and arteries acting languidly—the cutaneous circulation being therefore feeble—it requires very little cold, or other depressing cause, to load unduly the heart and arteries, having already almost more to do than they can perform without inconvenience; and in this case there is either no reaction, or the reaction is only partial. Long-continued shiverings, great prostration of strength succeed, followed perhaps by local determinations of blood, or by a generally disordered state of system, inflammatory affections, &c.

4th. The effect of immersion in cold water will vary according to the heat of the skin, to the vigour with which the cutaneous circulation is going on at

the time. The hotter the skin, the greater the vigour of its circulation, the more safe is cold bathing. But it must be especially remarked, that this supposes the heat to be caused, not merely by the sun's rays, or any similar mere external heating cause, but to be partially produced, and such as might be almost accounted for, by the energetic action of the heart and arteries; in fact, the hotter the surface of the body under such circumstances, the quicker the reaction. It is, therefore, not well to stand, after undressing, any long time before plunging into the water. Such a practice chills the body very much more, and in many cases renders bathing, which would be otherwise profitable and advantageous, absolutely unsafe.

5th. The effect of immersion in cold water will vary according to the fulness or emptiness of the stomach, the period of digestion, and the facility of digestion. It may be remarked that the stomach during digestion, and particularly during the first stages of digestion, is supplied with a very large quantity of blood. Bearing this in mind, let the reader think of what must necessarily be the effect of either warm or cold bathing, while the stomach is in that state; and more especially if the quantity of blood sent to the stomach is barely sufficient for the purpose of digestion; more particularly if the action of the stomach is weak or disordered. The quantity of blood, either directly or remotely directed to the skin by either warm or cold bathing, would lead the reader naturally to preconceive that a more or less severe fit of indigestion would follow. But this is not the only risk which attends the practice of cold bathing under such circumstances: so large a quantity of blood being directed to the stomach, the whole energies of the heart and arteries are not at immediate command; the skin is chilled, and the blood thrown on the great vessels: these are unprepared to devote all their powers to the restoration of the circulation in the skin; diverted by the demands of the stomach and those of the skin, both duties are but partially performed, unless the powers of the system are very great, and quite unimpaired; and not only are the functions of the stomach interrupted, but reaction is not immediate, and much risk is run of causing a disordered condition of the whole vascular system, and local and perhaps serious disease.

6th. The effect of immersion in cold water will vary according to the state of the mind. The influence of the mind on all the functions of the body, and particularly on the heart, are well known to be great. The palpitation which attends excitement of the mind; the blush which accompanies a sense of shame; the pallor of the skin, and shiverings, which attend fear; the local determinations of blood, as apoplexy, &c., which so often follow violent passions, or severe mental exercise, are all demonstrations of this fact. If the mind is languid, debilitated, worn out, lethargic, desponding, the bodily functions are almost always disordered in their actions; and the use of the cold bath will most commonly be attended with risk; it will not be followed by instantaneous and necessary reaction. The hot bath, in cases of this kind, by determining a large quantity of blood to the skin, and so relieving the brain and the greater masses of the nervous system from a large amount of blood, is to be preferred in many such cases, and, as a means of temporary relief, is, in many of them, infinitely better than the major part of the remedies to which the student and the melancholic too commonly fly.

ON ABSORPTION AND SANGUIFICATION.

ABSORPTION FROM THE BODY IN GENERAL.

(*Continued from page* 346.)

THE mucous membrane of the alimentary canal is by no means the only channel through which nutritive or other substances may be introduced into the circulating apparatus from external sources. The *lymphatic* system is present in all animals which have a lacteal system; and the two, as already pointed out, evidently constitute one set of vessels. The lymphatics, however, instead of commencing on the intestinal walls, are distributed through most of the vascular tissues of the body, and especially in the skin; but their number bears no proportion whatever to the vascularity of the

several tissues, or to the amount of interstitial change which these undergo, and it is remarkable that the nervous centres should be (so far as yet known) entirely destitute of them, and that they should be so scanty in the interior of muscles as to suggest that they belong rather to the connective areolar tissue, than to the muscular substance itself. Their origins cannot be clearly traced, but they seem in general to form a plexus (network) in the substance of the tissues, from which the convergent trunks arise. After passing, like the lacteals, through a series of glandular bodies (the precise nature of which will be presently considered), they empty their contents into the same receptacle with the lacteals, and the mingled products of both pass into the sanguiferous system. We find in the skin also a most copious distribution of capillary bloodvessels, the arrangement of which is by no means unlike that of the bloodvessels of the alimentary canal, and its surface is further extended by the elevations that form the sensory papillæ, which are in many parts comparable to the intestinal villi, although their special function is so different.

In the lowest tribes of animals, and in the earliest condition of the higher, it would seem as if absorption by the *external surface* is almost equally important to the maintenance of life with that which takes place through the internal reflection of it, forming the walls of the digestive cavity. In the adult condition of most of the higher animals, however, the special function of the latter is so much exalted as usually to supersede the necessity of any other supply, and the function of the cutaneous and pulmonary surfaces may be considered as rather that of exhalation than of absorption. But there are peculiar conditions of the system in which the imbibition of fluid through these surfaces is performed with great activity, supplying what would otherwise be a most important deficiency. It may take place either through the direct application of fluid to the surface, or even through the medium of the atmosphere, in which a greater or less proportion of watery vapour is usually dissolved. This absorption occurs most vigorously when the system has been drained of its fluid, either by an excess of the excretions, or by a diminution of their regular supply.

It may be desirable to adduce some individual cases which will set this function in a desirable point of view; and those may first be noticed, in which the absorption took place through the contact of *liquids* with the skin. It is well known that shipwrecked sailors, and others who are suffering from thirst, owing to the want of fresh water, find it greatly alleviated, or altogether relieved, by dipping their clothes into the sea and putting them on while still wet, or by frequently immersing their own bodies. In a case related by Dr. Currie, of a patient labouring under *dysphagia* (difficulty of swallowing), in its most advanced stage (the introduction of any nutriment, whether solid or fluid, into the stomach, having become perfectly impracticable), an attempt was made to prolong his existence by the exhibition of nutritive enemas, and by immersion of the body night and morning in a bath of milk and water: during the continuance of this plan, his weight, which had been rapidly diminishing, remained stationary, although the quantity of the excretions was increased. How much of the absorption which must have been effected to replace the amount of excreted fluid is to be attributed to the baths, and how much to the enemas, it is not easy to say; but it is important to remark, that "the thirst, which was troublesome during the first days of the patient's abstinence, was abated, and, as he declared, removed by the tepid bath, in which he had the most grateful sensations." "It cannot be doubted," Dr. Currie observes, "that the discharge by stool and perspiration exceeded the weight of the clysters," and the loss by the urinary excretion, which increased by twenty-four ounces to thirty-six ounces under this system, is only to be accounted for by the cutaneous absorption. Dr. S. Smith mentions that a man who had lost nearly three pounds by perspiration during an hour and a quarter's labour in a very hot atmosphere, regained eight ounces by an immersion in a warm bath, at ninety-five degrees, for half an hour. The experiments of Dr. Madden, on his

own person, show that a positive increase takes place in the weight of the body during immersion in the warm bath, even though there is at the same time a continual loss of weight by pulmonary exhalations, and by transudation from the skin. This increase was in some instances as much as five drachms in half an hour; whilst the loss of weight during the previous half hour had been six and a half drachms; so that, if the same rate of loss were continued in the bath, the real gain by absorption must have been nearly an ounce and a half. Why this gain was much less than in the cases just alluded to, is at once accounted for by the fact, that there was no deficiency, in the latter case, of the fluids naturally present in the body.

Under particular circumstances a considerable amount of water may be absorbed by the vapour of the atmosphere. It is stated by Dr. Watson, that a lad at Newmarket, having been almost starved, in order that he might be reduced to a proper weight for riding a match, was weighed at nine A.M., and again at ten A.M, and he was found to have gained nearly thirty ounces in weight in the course of this hour. Another example by the late Sir G. Hill: a jockey had been for some time training for a race, in which that gentleman was much interested, and had been reduced to the proper weight; on the morning of the trial, being much oppressed with thirst, he took one cup of tea, and shortly afterwards his weight was found to have increased six pounds, so that he was incapacitated from riding. Nearly the whole of the increase in the former case, and at least three-fourths of it in the latter, must be attributed to absorption from the vapour of the atmosphere; probably, however, rather through the lungs than through the skin.

If the possibility of such absorption be admitted, we are, probably, to attribute to it the chief part of the excess of watery fluid which cannot be accounted for, in the following instances:—Dr. Hill relates the case of a diabetic patient who for five weeks passed twenty-four pounds of urine every twenty-four hours; his ingesta during the same period amounted to twenty-two pounds. At the commencement of the disease, he weighed one hundred and forty-five pounds, and when he died, twenty-seven pounds of loss had been sustained. The daily excess of the excretions over the fluid taken could not have been less than four pounds, making one hundred and forty pounds for the thirty-five days during which the complaint lasted. If from this, we deduct the amount of diminution which the weight of the body sustained during the time, we shall have a hundred and thirteen pounds to be accounted for, which could have only entered the body by the atmosphere. A case of ovarian dropsy also, in which it was observed that the patient during eighteen days drank forty-three pints of fluid, and that she discharged by urine and by paracentesis (tapping) ninety-one pints, which leaves a balance of thirty-eight pints to be similarly accounted for.

(To be continued.)

PICTORIAL ILLUSTRATIONS OF MEDICAL BOTANY.

AGRIMONY.—(AGRIMONIA EUPATORIA.)

DESCRIPTION.—A perennial plant growing from two to five feet in height, with upright, round stalks; leaves alternate and indented, having smaller leaves at intervals between the large ones; flowers yellow, attached to long spikes by short foot-stalks; root reddish, beset with blackish scales.

TIME.—From July to September.

PLACE.—Open pastures, borders of fields, and by the sides of hedges and ditches.

QUALITIES AND VIRTUES.—It is a valuable herb, possessing astringent and diuretic qualities; is good in cases of dropsy and jaundice. It may be freely given to children afflicted with the measles, chicken-pox, or scarlet-fever. It is a good clyster, and united with raspberry-leaves, may be given for looseness of the bowels with good effect.

EARLY RISING.—I would inscribe on the curtains of your bed, and the walls of your chamber, If you do not rise early, you can make progress in nothing; if you do not set apart your hours for reading, if you suffer yourself or any one else to break in upon them, your days will slip through your hands unprofitable and frivolous, and unenjoyed by yourself.—*Lord Chatham.*

AGRIMONY.

A REVIEW OF THE OLD SCHOOL PRACTICE OF PHYSIC.

BY J. NADEN, SHEFFIELD.

(*Continued from page* 342.)

MILTON says, "Physicians are deeply versed in books, but shallow in themselves." John Lizars, Fellow of the Royal College of Surgeons, and Lecturer on Anatomy and Physiology in Edinburgh, makes the following remarks on the present state of the old school practice of physic:—"Let any one read the medical journals, or investigate the reports of the hospitals, and reconcile to his feelings the fatal blunders which are daily committed, both by physicians and surgeons. How many are treated for colic, and die of inflammation of the bowels! How many are treated for low nervous fever or typhus, and die of acute inflammation! How many are tortured on the operating-table for stone in the bladder, or for aneurism (enlargement of an artery), and die on the same or following day, of hemorrhage, or inflammation, produced by the unhallowed hands of the surgeon!" Enter his chamber, view his breathless corpse, and comment then upon his sudden death. "The next question," he says, "which may naturally be asked is, 'Does the same lamentable evil exist in private practice?' And the answer is as naturally, 'Undoubtedly it does.' This very day I have operated upon a gentleman for fistula in perineo, whose urethra was destroyed by one of the medical practitioners of the county attempting to introduce the catheter, about three years ago. I have been obliged to lay the urethra open from the bulb to the bladder, or rather I have been compelled to make a new urethra, for every vestige of the former one was obliterated by sinuses. And I here candidly confess, that all the operations for puncturing the bladder, which I have performed, and those have not been few, have been in consequence of practitioners injuring the urinary canal by the introduction of the catheter." Here, then, is an admission from one of the most learned of the medical profession, that there is but few of them, though they possess the necessary qualification (a diploma), which should be a guarantee to the public, that they are really in possession of practical knowledge, which shall be used, not to the injury of the patient, but for the alleviation of his sufferings. Dr. Good says, "The science of medicine is a barbarous jargon, and the effects of our medicine on the human system are in the highest degree uncertain, except, indeed, that they have destroyed more lives than war, pestilence and famine combined." Dr. Shattuck says, "Physicians sometimes contradict themselves, and oftener one another, in their nosologies. It is true that books on medicines are abundant, but they more often abound in theories founded on hypotheses, than in theory founded on fact: they contain more arguments to demolish preceding or contemporary theories than true history of human sufferings." Dr. Abercrombie says, "We own our system is defective, and the action of our remedies uncertain in the highest degree." Dr. Alcot, in No. 1 of his Health Tracts, speaking of medical poisons, observes, "We do not deny—we cannot—that most of them are of great power and efficiency. The weakest of them usually possesses power enough to redden and inflame the whole lining membrane of the stomach and intestinal canal: what then must be the result when the stronger ones are taken? The truth is, as has been found from numerous dissections, this lining membrane may not only be in a state of subinflammation without our being sensible of it, but it may also be spread over with eruptions and small ulcers without causing any perceptible difference in our feelings, except perhaps a little more thirst, hot breath, and more frequent pulse. Dr. Mackintosh, speaking on indigestion, says, "Persons thus troubled are often heard to complain that they have a fit of the bile, and medical men, I fear, confound stomach disorders with those of the liver, and too frequently exhibit powerful mercurial preparations, to the great injury of the patient; but it is a despicable practice to give blue-pill in every disease connected with the digestive function, and it is much to be regretted that the name of Abernethy should ever have been associated with such insufferable quackery." Dr. Eberle says, "Common as dyspepsia is, and serious as are its consequences upon the health and happi-

ness of man, there is perhaps hardly any other malady which is so commonly misunderstood, consequently mismanaged." Dr. Mackintosh says, "Inflammation of the liver is often confounded with functional and structural derangement of neighbouring organs." He has seen some remarkable cases of this. One dissection revealed inflammation of the inferior lobe of the right lung, and another a collection of matter within the chest, both of which had been mistaken during life, and treated as an affection of the liver, with sundry courses of mercury. Here is an acknowledgment that medical men, with all their skill and learning both in anatomy and physiology, often mistake one disease for another, and the mistake is not discovered until too late to be of any service to the patient; and these men would cry down the botanic practitioner as not being able to discern one disease from another; but they forget that we believe all diseases spring from one cause, that there is a unity in disease, and that the means we use, instead of obstructing the natural outlets of nature, assist in restoring the equal balance of power which had been lost; and no matter as to the seat of disease. Just listen to Dr. Eberle's remedy for acute inflammation of the liver, and judge for yourselves whether there is not more science, and reason too, on our side of the question. He says, "Equal parts of nitric acid (aqua-fortis) and muriatic acid, from half to a whole drachm, diluted in a sufficient quantity of water, may be taken daily, and in order (now mark this!) to prevent the acid from coming in contact with and injuring the teeth, it should be sucked through a glass tube or quill." If the teeth are in so much danger of being injured by the corrosive effect of these powerful acids, what are we to expect from them when they arrive in the stomach? The adherents of the old school practice of physic assert that cayenne will burn a hole in the stomach, and yet they have no objection to prescribe aqua-fortis, providing that they can introduce it into the stomach, so as not to burn or corrode the patient's teeth. We will take the disease called gout, which, perhaps, some of our readers may be the subject of, and yet not have sufficient confidence in the botanic practice for a cure. Dr. Eberle has advised, in the forming stage of gout, in order to prevent a paroxysm, an emetic; Chalmers, active purgatives; Musgrave, vegetable bitters, iron and high-seasoned food; Grant, Dover's powders, or antimonial wine, with opium; Fothergill, large doses of musk or castor; Williams, bleeding from the foot; Barthez, quinine, and the use of iced water internally. Here is certainly a variety of means to cure the gout; and happy is the man who has no need of them! As there are fevers of various types, we will, for the information of our readers, take a glance at the remedies used; for instance, bilious fever. In the Gentleman's Medical Pocket-book, the following is highly recommended as a cure: bleed the patient freely, and repeat the operation if the pulse seems to require it. The next step is to cleanse the stomach with an emetic (antimonial wine, of course), which having operated, open the bowels with calomel. The lancet and calomel are the two sheet-anchors in this disease; and irresolution or timidity in the employment of them may cost the sufferer his life. (Ha! ha!! ha!!!) From twenty to thirty grains of calomel, combined with a portion of jalap, may be given in treacle, and repeated till copious evacuations are produced. If the pain in the head be very great, shave it, and apply a blister. If, however, in spite of all endeavours to the contrary, the complaint seems advancing, endeavour to bring on salivation quick as possible. (Tell it not in Gath; publish it not in the streets of Askalon.) How different the treatment pursued, under similar circumstances, by the Coffinites! A vapour-bath, with an emetic of lobelia to cleanse the stomach, with tonics, stimulants and diuretics, to give tone and strength to the patient, so that he might have more power to overcome his disease. There is no trade or profession so liable to mistakes as the science of medicine, and no one profits so much by its blundering as the medical practitioners. So conflicting is their opinions, so contradictory their statements, that scarcely any two can be found to agree. Dr. Dodd says, "that medicine has never known the fertilising influence of inductive logic." Another says, "that reason and common sense have never

been brought to bear upon it." Dr. Waterhouse calls it learned quackery; Dr. Chapman, absurdity, contradiction and falsehood; Dr. L. M. Whiting, a perfect chaos, destitute of hardly one solitary, well-established fact; D'Alembert, a striking in the dark; Abercrombie, the art of conjecture and the science of guessing; and, to crown all, it has become a byword, that this proved science is a glorious uncertainty. Professor Jackson says, "experience cannot exist in medicine." Why, then, could they not have applied inductive science in an abstract way—compared aggregates—the length of lives of the sick who are attended by physicians with those who are not. It is already done, and the statistics of France have told the world, the doctors kill more than they cure. Remember, this appalling view of science *is* regular science, from regular authors. The case lies before us widely altered. The regulars had always operated on the negative. They had taken away light, that darkness might be the less blinding; they had taken away heat, that cold might be the less freezing. Like the ancients, who thought the torrid zone uninhabitable, they never dared to venture beyond their imaginary clime; but the botanic practitioner, the sneered-at COFFINITE, has operated on the positive, with opposite demonstrations. The sick are not killed, but cured. Medicine is no longer an uncertainty, but a fixed science. We cannot be mistaken as to the cause by which the natural difficulties of the science have been wrought to such a climax of doubt, intricacy and paradox. When we consider the erroneous course its professors have taken—when we consider that Abercrombie doubted whether we could act from experience in new cases, we discover at once the total want of a general guiding principle—we discover the effect, or conclusion, of that false system of facts which discriminated and divided disease into hundreds of kinds, with the supposition that each must be treated differently, as though they had different causes. It is manifest that the adoption of such a principle as this must involve the practitioner in a wilderness of uncertainty. Again: when we consider their paradoxical adoption of poisons in the name of medicines, and that Hooper says, soon after the time of Paracelsus, the abuse of them became so great, physicians fell into the opposite extremes of inefficient doses, and that again they have fallen back into a medium ground where he supposed the truth of the subject lay—and when we consider that whether the doses were large or small, they were poisons still, and would prove as fatal when given by the hands of a licensed practitioner as when given by the hands of a quack—when we consider that the legitimate phenomena of disease are debility and decay, that the phenomena of fever, pain and spasm are efforts of nature to overcome disease, and that it is against the latter physicians have principally directed their efforts, that they have operated upon the effect instead of the cause—in point, when we consider that quelling the efforts of nature destroys the appearance of disease; that bleeding will reduce the pressure upon the vessels, and pain in many cases; that sedatives and narcotics, which reduce the activity of the vessels, will also reduce pain; and that poisons, which produce debility, will reduce fever, will be followed by coldness, and even death—we discover how physicians have been beguiled into error, and were induced to persecute the laws of life, thinking they did the God of nature service. But there are honest men amongst the medical profession. Dr. Jennings, of Connecticut, being a prominent one, finding his practice deleterious, conscience bade him prescribe bread-pills and coloured water. He became much more successful and celebrated. Conscience again compelled him to divulge his practice to his neighbours, and he lost it. So, if doctors would be honest, the people will not allow it. In conclusion, let us weigh the aggregates of our practice with that of the regulars, and I think the balance turns in our favour ten to one. Let us admit the use of all regular errors, in which, in analysing differences, they have forgotten the generalisation of resemblance. Let us admit all the uncertainties of our own practice, and take the aggregate of our experiments, and we have left us the following great general principles:—Life, to our understanding, is action, and disease is deficiency of action. Heat, in the egg, ovum and germ,

is the first condition of action; and heat and cold stand to our agency as the first cause of life and death. Disease is merely the negative of health; therefore, medicines must always be positive; they must increase action: that which has a legitimate tendency to produce disease can never be made to cure it.

MEDICAL EDUCATION.

In treating upon medical education, we shall transcribe a lengthy article from the Westminster Review of July, 1858, upon this very momentous subject, which is interspersed with a vast amount of information that ought fully to be known, concerning the transactions of the medical monopolists, chartered bodies and companies, the truthful details of which must fill every honest mind with abhorrence for such malpractices, with just contempt and indignation for men of such reputed high standing, who could so far forget the dignity of their position as to participate in such moral turpitude, and thereby enforce a thorough conviction on the minds not only of our readers, but the public generally, that all medical monopolies ought to be at once annihilated, and the medical profession thrown open to all, so that a fair field for competition should be the result, and those who are the most practically clever should meet with their deserved reward; and in thus premising, we shall take upon ourselves the duty of making such remarks and observations as we think the subject requires and demands. The Reviewer says:—

The number of legally qualified physicians, surgeons, and general practitioners in Great Britain and Ireland, is estimated at fifteen thousand. There is also the large medical staff of the army and navy, and of the East India Company's service. To these must be added a motley host of practitioners having no legal qualification at all. Many of the latter are the dregs of the profession: failures, intellectual or moral, or both, for the most part irremediable; men, each of whom was once the hope of a family, but who, from stupidity or idleness, failed to obtain a diploma, or who, having exhausted his own or his parents' resources in reckless extravagance and profligacy, lacked the means to complete his education. Such men swell the number of druggists' shops, throughout London and other large towns, the owners of which, severally announce themselves as "surgeon, &c.," and do what is called a large "counter practice," in prescribing for and selling medicines to the ignorant poor. These professional abortions are also employed as surgeons, not only of our ordinary merchant ships, but even of those freighted with hundreds of human beings—emigrants to North America, or to our colonies at the Antipodes. Considering all classes and grades of the profession, qualified and not qualified, we find that the entire medical host sustained by the United Kingdom probably amounts to not less than twenty thousand, the numerical efficiency of which is maintained by recruits, counting only those who obtain diplomas, at the rate of a thousand a year.

Observation 1.—Mark: the author only states *numerical* efficiency. Only reflect upon the number of 20,000, with an additional 1,000 added year by year, wedded to the allopathic system—prescribers, both by prejudice and education, of the poisons and poisonous drugs and minerals so deleterious to life and health—some knowing that a decoction of herbs which we, the practitioners of Dr. Coffin's Botanical System, use, will work the cure of a disease innocuously, yet will sooner use their beloved calomel, antimony, iodine, aconite, &c., to expel the disease noxiously, caring nothing for the inroads such poisons make upon the human constitution, provided a temporary cure be effected—and only temporary will it be; for, if the particular disease does not again make its appearance, a foundation is laid for others of a more alarming character—and all these men empowered by Act of Parliament to practise their killing trade without let or hindrance. This speaks volumes for a change, and cries aloud for redress.

A standing army of twenty thousand men, the greater number of whom are presumed to be gentlemen, and to have had an education more comprehensive and scientific than any other body of men! What a power to battle with disease and death, if only its efficiency were proportionate to its numerical force! Whether we regard the costly education of this body, or the vast interests confided to it, we cannot fail to be impressed with its importance, and its power for good and for evil. To the members of this body, distributed over the United

Kingdom, the very lives of the people are entrusted. Aud where life itself is not involved, the physical well-being—health and the consequent capacity of labour and enjoyment—is subject to their influence or control. The condition of our Crimean army, engaged in a cause in which our own imperial interests were only indirectly involved, and fighting for the protection of a people whose religion christians declare heathenish, and whose political and social institutions Englishmen call barbarous, filled the national heart with solicitude. The administrative imbecility which sent out that army, wretchedly officered, and lacking adequate supplies of food, clothes, shelter, and provision for the sick and wounded, roused the indignation of all England—an indignation only appeased by sacrificing the Minister-at-War, and by the most strenuous efforts to remedy, as far as was still possible, those appalling sufferings which official negligence and ignorance had created. Fortunate would it be for us, as a people, if some catastrophe, dire as that which befel the army of Sebastapol, were to burst forth and reveal the terrible inefficiency of that army, infinitely more important, which is not engaged with a foe only during a few months now and then, but which is incessantly fighting that deadliest of all enemies disease—an enemy which is sleepless, insidious, untiring, and whose single attacks are often more destructive than were all the resources of the Russians throughout the Crimean campaign. The soldier who battles with a foe, whose protæan shapes are countless, and whose secret and mysterious influences baffle the scrutiny of the ablest intellects, surely needs, above all others, to be well equipped and to be trained to observe accurately, to reason logically, to decide cautiously, and to act promptly. He needs to be at once an able and an acute tactician, to be fortified by an extensive knowledge of physical science, and to command all the resources of his art without being trammelled by such of its traditions as are rendered venerable only by age, or by such of its usages as enlightened experience condemns. But besides a disciplined intellect, stored with science and skilled in art, the "duly qualified physician" needs especially to be richly gifted with the moral sentiments. The man who walks in the midst of pain and suffering so destitute of feeling as to be untouched by the sight of affliction, or who has so little strength of character that he neither commands obedience nor inspires trust, has mistaken his vocation. In proportion as the wonderful influence of the mind on the body shall be recognised and appreciated, the office of the physician will be exalted, and he will become more and more habituated to track the causes of a large amount of disease into the secret recesses of the soul itself. He will find that his remedies to be successful must too often be applied there. He will feel called upon to succour the weak, to rebuke the self-indulgent, to sympathise with the trouble-stricken, to correct morbid views of life and duty, to cheer the despairing, and where hope is no longer possible, to smooth the way through the dark valley with such comfort and consolation as only he who is both wise and good can administer. In short, our conception of a physician comprehends a general as well as a special culture of an already fairly gifted nature; and whatever changes in the present system of medical education will most surely result in providing the country with physicians of this order, we shall hail as the real "medical reform."

Observation 2.—The sympathy shown for and feeling evinced towards the invalid is a leading trait in the practice of all Dr. Coffin's adherents. It is not their wont to pay the flying visits so proverbial among the diplomatised. No; they, the adherents of Coffinism, patiently stop with the sick, investigate the symptoms, carefully examine all the circumstances of the case, and spare neither time nor talent speedily to effect the cure.

Unfortunately, the public thinks itself in no way responsible for the education of its physicians and surgeons. It looks confidingly to the State as the competent superintendent of medical training, and complacently accepts all as duly qualified healers, who possess diplomas or licenses to practise. It has a confused idea that all such authoritative documents emanate from bodies who discharge their duties as instructors and examiners rigorously and efficiently, by virtue of governmental supervision and control. Accredited with such valid instruments, surely their

holders must be learned in all that medical science can teach, is the conclusion of the ever-credulous public, and so it commits its life to their keeping. After living a long time in the sphere of delusion, we are made very uncomfortable when visions of reality obtrude themselves, but like unpalatable medicines, their effects are often very wholesome. We shall, therefore, present our readers with a view of the reality of medical education; and in order that what is seen may be seen thoroughly, we shall confine the inspection almost exclusively to the medical education of England, as determined and controlled by the Royal College of Surgeons, by the Royal College of Physicians, and by the Apothecaries' Company of London.

(To be continued.)

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To our Bath Correspondent. The subject is an important one, but out of our jurisdiction. A valuable article could be written upon it, but where would the remuneration come from? Time is money, and editors, like other persons, must live.

Mr. Gibbs on Compulsory Vaccination in our next.

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No. 269—Vol. VIII. SATURDAY, SEPTEMBER 4, 1858. Price 1d.

THE GLEANER, No. 15.

ENERGY AND RAPIDITY OF MUSCULAR CONTRACTION.

The energy of muscular contraction is of course to be most remarkably observed in those instances in which the continual exercise of particular parts has occasioned an increased determination of blood towards them, and, in consequence, a permanent increase of their bulk. This has been the case, for example, with persons who have gained a livelihood by exhibiting feats of strength. Much will of course depend upon the mechanically advantageous application of muscular power; and in this manner, effects may be produced, even by persons of ordinary strength, which would not have been thought credible. In lifting a heavy weight in each hand, for example, a person who keeps his back perfectly rigid, so as to throw the pressure vertically upon the pelvis, and only uses the powerful extensors of the thigh and calf, by straightening the knees (previously somewhat flexed), and bringing the leg to a right angle with the foot, will have a great advantage over one who uses his lumbar muscles for the purpose. A still greater advantage will be gained by throwing the weight more directly upon the loins by means of a sort of girdle, shaped so as to rest upon the top of the sacrum and the ridges of the illia, and by pressing with the hand upon a frame so arranged as to bring the muscles of the arms to the assistance of those of the legs; in this manner a single man of ordinary strength may raise a weight of 2,000lbs., whilst few who are unaccustomed to such exertions can lift more than 300lbs. in the ordinary mode. A man of great natural strength, however, has been known to lift 800lbs. with his hands, and the same party performed several other curious feats of strength, which seem deserving of being here noticed: 1. By the strength of his fingers, he rolled up a very large and strong pewter dish. 2. He broke several short and strong pieces of tobacco-pipe with the force of his middle finger, having laid them on his first and third finger. 3. Having thrust in under his garter the bowl of a strong tobacco-pipe, his legs being bent, he broke it to pieces by the tendons of his hams without altering the bending of the knee. 4. He broke such another bowl between his first and second fingers, by pressing them together sideways. 5. He lifted a table six feet long, which had half a hundred weight hanging at the end of it, with his teeth, and held it in that position for a considerable time. It is true the feet of the table rested against his knees; but as the length of the table was much greater than its height, that performance required a great strength to be exerted by the muscles of his loins, neck and jaws. 6. He took an iron kitchen poker, about a yard long, and three inches in circumference, and holding it in his right hand, he struck it on his bare left arm between the elbow and the wrist till he bent the poker nearly to a right angle. 7. He took such another poker, and holding the ends of it in his hands, and the middle of it against the back of his neck, he brought both ends of it together before

him, and what was yet more difficult, he pulled it straight again. Haller mentions an instance of a man who could raise a weight of 300lbs. by the action of the elevator muscles of his jaw; and that of a slender girl, affected with tetanic spasm, in whom the extensor muscles of the back in the state of tonic contraction, resisted a weight of 800lbs. laid on the abdomen with the absurd intention of straightening. It is to be recollected, that the mechanical application of the power developed by muscular contraction to the movement of the body, is very commonly disadvantageous as regards *force*, being designed to cause the part moved to pass over a much greater *space* than that through which the muscle contracts. Thus the temporal muscle is attached to the lower jaw, at about 1-3rd of the distance between the condyle and the incisors, so that a shortening of the muscle to the amount of half an inch, will draw up the front of the jaw through an inch and a half, but a power of 900lbs. applied by the muscle, would be required to raise 300lbs. bearing on the incisors. In the case of the fore arm and leg, the disproportion is much greater, the points of attachment of the muscles, by which the knee and elbow-joints are flexed and extended, being much closer to the fulcrum in comparison with the distance of the points on which the resistance bears.

The rapidity of the changes of position of the component particles of muscular fibres, may, as Dr. Allison justly remarks, be estimated, though it can hardly be conceived, from various well known facts. The pulsations of the heart can sometimes be distinctly numbered in children, at more than two hundred in the minute; and as each contraction of the ventricles occupies only half of the time of the whole pulsation, it must be accomplished in 1-400th of a minute, or 3-20ths of a second. Again, it is certain that by the movements of the tongue and other organs of speech, 1,500 letters can be distinctly pronounced by some persons in a minute; every one of these must require a separate contraction of muscular fibres; and the production and cessation of each of the sounds implies that each separate contraction must be followed by a relaxation of equal length, each contraction, therefore, must have been effected in 1-3000th part of a minute, or in 1-50th of a second. Haller calculated that in the limbs of a dog at full speed, muscular contractions must take place in less than 1-200th of a second for many minutes at least in succession. All these instances however are thrown into the shade, by those which may be drawn from the class of insects. The rapidity of the vibrations of the wings may be estimated from the musical tone which they produce, it being easily ascertained by experiments what number of vibrations are required to produce any note in the scale. From these data, it appears to be the necessary result, that the wings of many insects strike the air *many hundred* or even many *thousand* times in every second. The minute precision with which the degree of muscular contraction can be adapted to the designed effect is in no instance more remarkable than in the glottis. The musical pitch of the tones produced by it is regulated by the degree of tension of the chordæ vocales, which are possessed of a very considerable degree of elasticity. According to the observations of Müller, the average length of these in the male in a state of repose is about 73-100ths of an inch, whilst in the state of greatest tension it is about 93-100ths; the difference being therefore 20-100ths or 1-5th of an inch. In the female glottis, the average dimensions are about 51-100ths and 63-100ths respectively, the difference being thus about 1-8th of an inch. Now the natural compass of the voice, in most persons who have cultivated the vocal organ, may be stated at about two octaves or twenty-four semitones. Within each semitone a singer of ordinary capability could produce at least ten distinct intervals; so that, of the total number, 240 is a very moderate estimate. There must therefore be at least 240 different states of tension of the vocal cords, every one of which is produced by the will, without any previous trial; and the whole variation in the length of the cords being not more than 1-5th of an inch, even in man, the variation required to pass from one interval to another will not be more than 1-1200th of an inch; and yet this estimate is much below that which might be truly

made from the performances of a practised vocalist, for it is said that Madame Mara was able to sound a hundred different intervals between each tone. The compass of her voice was at least three octaves, or twenty-one tones, so that the total number of intervals was 2,100, all comprised within an extreme variation of 1-8th of an inch, so that it might be said that she was able to determine the contractions of her vocal muscles to nearly the 17-1000th of an inch.

MEDICAL EDUCATION.

(*Continued from page* 360.)

The Guild of London Barbers, which was incorporated by Henry IV, in 1461, and which got a renewal of its charter, in 1500, from Henry VII, consisted of a commonalty under the government of masters named from the latter date, "Magistri sive gubernatores Mistere barbitonsorum et serurgicorum." This guild, which was united with a rival company in 1512, by Henry VIII, finding itself harassed by the prosecutions of the College of Physicians, sought a confirmation and extension of its privileges from James I, who empowered it to form a "Court of Assistants," two of whom, along with the master, were to examine all intent on practising surgery in London, or within three miles thereof. Charles I increased the number of examiners to ten, to be elected for life, by and out of the Court of Assistants, of which they were still to form a part; and extended the jurisdiction of the college over an area of seven miles around London. When, in 1745, the surgeons were separated from the barbers by Act of Parliament, sixteen persons were nominated who were to elect five others; the twenty-one persons thus appointed for life, with power to elect their successors, constituted the new Court of Assistants. In 1800, this corporation was erected into a College by Royal Charter; the constitution and powers of this college remained substantially the same as enjoyed by the Company and defined by the Act of Parliament just mentioned. The final transformation of the Company into the College was effected in 1822, when another charter dignified the master, governors, and court of assistants, by the new titles of president, vice-president, and council, and conferred the privilege of having a mace! We are informed by one of its presidents (Mr. Guthrie) that as the act of 1745 was obtained by the influence of George II's sergeant-surgeon, Mr. Ranby, on condition that he was made the first master of the new corporation of surgeons, so this corporation became a college in 1800, "by private arrangement and bargain" with another sergeant-surgeon, Sir David Dundas, who sold to the court of assistants his influence with royalty, on terms as satisfactory as those dictated by his predecessor.

Observation 3.—Thus we see that the first surgeons were barbers, and that no one could become a surgeon without being a barber. This paragraph also explains the commencement of medical monopoly.

The constitution of this surgical corporation wholly ignored the existence of the large body of men who had paid for and who practised by the authority of its diploma. A self-elective and irresponsible council, the members of which were removeable only by death, exercise, without the possibility of check or correction, the sole control of surgical education in England, and appropriated, in the way most agreeable to itself, the large revenue derived from the fees of candidates for its diploma. To say that the members of this council availed themselves of their official position to enhance their own influence and to enrich themselves, is merely to say that they were human; we are only concerned to illustrate the abnormal development of these tendencies, and the thousandfold evils of that development when fostered and protected by the State.

The council was, and still is, mainly composed of surgeons connected with London hospitals. To the several hospitals are attached medical schools, where practical anatomy is taught, and where lectures on the various branches of medical and surgical education are delivered. Many of the surgeons attached to the hospitals lecture in these schools, while the students of the several schools usually attend the practice of the neighbouring hospital. Indeed, each hospital, viewed as an institution for professional instruction, is so blended with the school

contiguous to it that pupils can pay for all the lectures, as well as for all the hospital practice, which they will have to attend during their period of study, in one sum; and to induce them to do so a large reduction on the total amount payable for all the course of lectures is made. In short, the joint authorities of the school and hospital contract to supply any applicant with all the certificates necessary to constitute him an admissible candidate for the diploma of the College of Surgeons; the conditions on the student's part being payment of the stipulated sum when he enters the school, and such attendance there and at the hospital as may justify the teachers, really or *seemingly*, in certifying that the student has "diligently" attended their several courses of lectures, and the requisite hospital practice.

As the members of the council of the newly chartered college stood in the relation just described to the metropolitan schools, it very naturally occurred to them to use their authority in order to secure for themselves the monopoly of teaching the great majority of English medical students. Accordingly they resolved in 1824 that no person should be an admissible candidate for the surgical diploma until he produced certificates of having attended certain courses of lectures during three winter sessions, and of having attended the surgical practice of a hospital during at least one year. They resolved at the same time that they would not recognise the certificates of any English provincial teachers, or of the surgeons to any English provincial hospital.

The unjust and injurious effects of these resolutions were too numerous and too extensively ramified to admit of complete explanation here, but we shall describe those which are most notorious: the refusal to recognise the certificates of English provincial hospitals was a great wrong to those hospitals and to their surgeons, and a considerable amount of fees was thus diverted from them to their "protected" rivals in London. The reason put forward by the college for their exclusion, viz., in order "to promote the cultivation of sound chirurgical knowledge, and to discountenance practices which have a contrary tendency," is but a transparent pretence, if we may trust the judgment of Mr. Lawrence, now one of the College Examiners. He says, "This proscription conveys a most injurious reflection on the surgeons of our country hospitals; having the pleasure of being acquainted with many of them, and being, therefore, able to speak from personal knowledge of their abilities and professional attainments, I have no hesitation in declaring that a more unmerited exclusion was never pronounced against any set of men." The injustice to pupils was no less decisive. The expenses of their professional education were greatly increased by residence in the metropolis and by the higher fees of metropolitan instructors. On this point we again quote Mr. Lawrence:—"The provincial hospitals of England, many of which equal in the number of their patients the smaller hospitals of London, afford every opportunity of acquiring that most valuable kind of knowledge which is derived from experience. The practical study of the profession is here conducted with peculiar advantages, from the comparatively small number of students . . . . The number of persons to whom instruction can be imparted at the bedside of the patient is circumscribed within narrow limits . . . . The examination and explanation of a case, and its principles of treatment, can be made useful only to the small number who are able to see the patient and hear the surgeon." Mr. Lawrence adds that the forced desertion of the country hospitals has the "injurious effect of crowding with pupils the wards and operating theatres of the London hospitals so as to limit and often entirely impede all useful instruction in those establishments." Mr. Abernethy, in an address by him to the council, admitted that "the Court of Examiners knew that many of the provincial hospitals of this country presented a larger field for the acquirement of practical knowledge than is to be met with in some of the metropolitan hospitals which it has recognised as schools of surgery."

About 1824 anatomical subjects were obtained with great difficulty in London; it therefore occurred to an accomplished anatomical teacher, Mr. Bennett, to open

a school for English students in Paris, where the facilities for dissecting were great, and as the large medical schools of London limited their instruction in practical anatomy to the winter session, private teachers obtained such subjects as were to be had between March and October, and gave anatomical instruction during the summer months, and thus none of the opportunities (always too few) for dissection were lost. But if these sensible arrangements had been allowed to continue, the monopoly of teaching enjoyed by the members of the college council would have been trenched upon; recognition of them was therefore refused. Mr. Bennett's Paris class consisted chiefly of "men far advanced in their studies, seven-eighths of them at least being doctors of medicine, or members of colleges of surgeons," and was, therefore, calculated to enable the most enterprising English physicians and surgeons to distinguish themselves in their profession. French students became jealous of Mr. Bennett's school lest it should enhance the scarcity of subjects. Apprehending some obstacles from the French Government, he appealed to Mr. Canning, on the ground of the great advantages presented by the Paris school to English students, to use his influence with the French Government in order that the school might be sustained. But an unanimous resolution of the college council, enclosed in a letter from its president to Mr. Canning, "successfully dissuaded him from affording to his countrymen the protection they solicited." Private teachers of anatomy, by devoting all their energies to their undertakings, instead of dispersing them in hospital and private practice, are sure to be the most thorough and competent teachers, and yet it is these very men which the State-accredited college refused to recognise. After Mr. Bennett's Paris school was closed, he and a Mr. Kiernan, equally distinguished as a teacher, as well as all others who were not surgeons or physicians to a London hospital, were virtually prohibited from giving instructions by the resolution of the college not to accept their certificates, although, as Mr. Lawrence says, "it is notorious that the appointments to London hospitals, being often procured by numerous connections and powerful interest, are not in themselves a criterion of talent and knowledge, and that they have been held in many instances by persons of no professional reputation."

(To be continued.)

ON ABSORPTION AND SANGUIFICATION.

(Continued from page 354.)

Not only water, but substances dissolved in it, may be thus introduced. It has been found, that after bathing in infusions of madder, rhubarb and turmeric, the urine was tinged with these substances; and that a garlic plaster affected the breath, when every care was taken, by breathing through a tube connected with the exterior of the apartment, that the odour should not be received into the lungs. Gallic acid has been found in the urine, after the external application of a decoction of a bark containing it; and the soothing influence, in cases of neuralgic pain, of the external application of cherry laurel water is well known. Many saline substances are absorbed by the skin, when applied to it in solution, and it is interesting to remark, that, contrary to what happens in regard to the absorption of these from the alimentary canal, they are, for the most part, more readily discoverable in the absorbents than in the veins. This is probably due to the fact, that the imbibition of them takes place entirely according to physical laws, in conformity with which they pass most readily into the vessels which present the thinnest walls and the largest surface. In the intestines, the vascular plexus on each villus is not only very extensive, but also ensheaths the lacteal trunk; and as the walls of the veins are thin, there is considerable facility for the entrance of saline and other substances into the general current of the circulation; but in the skin the lymphatics are distributed much more minutely and extensively than in the veins; and soluble matters, therefore, enter them in preference to the veins. The absorbent power of the lymphatics of the skin is well shewn by the following experiments:—A bandage having been tied round the hind leg of a puppy, the limb was kept for twenty-four hours in tepid milk, at the expiration of this period,

the lymphatics were found full of milk, whilst the veins contained none. In repeating this experiment upon a young man, no milk could be detected in the blood drawn from a vein. The posterior extremities of a frog were kept for two hours in a solution of prussiate of potass; the salt had freely penetrated the lymphatics, but had not entered the veins. It does not follow, however, from these and similar experiments, that in all tissues the lymphatics absorb more readily than the veins; for, as the capillary blood-vessels in the lungs are much more freely exposed to the surface of the air-cells than are the lymphatics, we should, on the principles just now stated, expect the former to absorb more readily. This appears, from experiment, to be the fact, for when a solution of prussiate of potass was injected into the lung, the salt could be detected in the serum of the blood much sooner than in the lymph, and in the blood of the left cavities of the heart, before it had reached that of the right.

Our inferences with regard to the ordinary functions of the lymphatic system, however, must be rather drawn from the nature of the fluid which it contains and from the uses subsequently made of it; than from such experiments as the preceding. We shall presently see that there is a close correspondence in composition, between the chyle of the lacteals and the lymph of the lymphatics, the chief difference being the presence of a considerable quantity of fatty matter in the former, and of a larger proportion of the assimilable substances (albumen and fibrin), which are equally characteristic of both. This evident conformity in the nature of the fluid which these two sets of vessels transmit, joined to the fact, that the fluid lymph, like the chyle, is conveyed into the general current of the circulation, just before the blood is again transmitted to the system at large, almost inevitably leads to the inference, that the lymph is, like the chyle, a *nutritious* fluid, and is not of an excrementitious character, as maintained by Hunter and his followers. On the other hand, the close resemblance between the contents of the lymphatics, and diluted liquor sanguinis, seems to indicate that the former are chiefly derived from the fluid portion of the blood, which has transuded through the walls of the capillary vessels; and we shall presently see reason to believe that this transudation is partly for the purpose of subjecting the crude materials which may have been taken up direct into the blood-vessels, to an elaborating or preparatory agency, such as it seems to be the especial object of the lacteal system to exert upon the nutritive substances which *it* serves to introduce into the circulation. But it seems not impossible, that there may be another source for the contents of the lymphatics. We have already had to allude, on several occasions, to the disintegration which is continually taking place within the living body, whether as a result of the limited duration of the life of its component parts, or as a consequence of the decomposing action of oxygen. Now the *death* of the tissues by no means involves their immediate and complete destruction; and there seems no more reason why an animal should not derive support from its own dead parts than from the dead body of another individual. Whilst, therefore, the matter which has undergone too complete a disintegration to be again employed as nutrient material is carried off by the excreting processes, that portion which is again capable of being assimilated may be taken up by the lymphatic system. If this be the case, we may say with Dr. Prout, that "a sort of digestion is carried on in all parts of the body." It may be stated then, as a general proposition, that the function of the absorbent system is to take up and to convey into the circulating apparatus such substances as are capable of appropriation to the *nutritive* process, whether these substances be directly furnished by the external world, or be derived from the disintegration of the organism itself. We have seen that in the lacteals, the selecting power is such, that these vessels are not disposed to convey into the system any substances but such as are destined for this purpose, and that extraneous matters are absorbed in preference by the mesenteric bloodvessels. The case is different, however, with regard to the lymphatics; for there is reason to believe that they are more disposed than the venous capillaries to the absorption of other soluble matters, especially when

these are brought into relation with the skin, through which the lymphatic vessels are profusely distributed.

SMALLPOX AND VACCINATION.

To the Editor of the Botanical Journal.

SIR,—The *Times* of this day contains, in its Indian correspondence, a passage strikingly characteristic of the mental idiosyncracy of a Jennerite:

"The increase of smallpox has attracted attention, and Dr. Tice has recommended the re-vaccination of the soldiers. The disease is propagated by the camp-followers, who will not permit vaccination."

Jenner's infallible specific fails, and his infatuated disciples, instead of perceiving its worthlessness, would blindly fly to it again. Smallpox attacks both vaccinated and unvaccinated, and the unvaccinated alone are held responsible. Do the vaccinated never communicate the disease the one to the other? or are we required to believe that in each case the disease is communicated by the unvaccinated to the vaccinated? But why should the vaccinated catch the disease at all? Are they not "protected?" Are they not proof against contagion? If not, of what avail is their nostrum? Moreover, if the source of contagion be amongst the unvaccinated camp-followers, how is it to be cut off by the re-vaccination of the soldiery?

Long before Jenner's day, Pringle remarked, "Smallpox is rare in camps and armies." Is it so now? Does it spare our vaccinated soldiers and sailors—officers or privates? We have heard of the dismay it caused in our Baltic fleet—of a troop-ship, bound to India, obliged to return into port with the pest on board—of smallpox in our barracks—and now we hear of smallpox in our Indian army.

Jenner boasted that vaccination "is attended with the singularly beneficial effect of rendering through life the persons so inoculated perfectly secure from the infection of smallpox." For this audacious assertion he was loaded with costly presents, with panegyrics in prose and verse, and with £30,000 voted by Parliament. "Re-vaccinate—re-vaccinate!" is the senseless cry of his bigoted disciples.

Jenner considered vaccination so simple an affair that he encouraged all sorts of volunteers, and vaunted even the success of his vaccinating ladies. His disciples now gravely assure us that the operation requires great skill.

"One puncture," said Jenner, "is always sufficient;" "four or more" are essential, exclaim his disciples.

There is no end to the absurd and contradictory excuses with which the traffickers in cowpox seek to cover their failures. When will beings, considered rational, cease to confide in this hideous imposture?

I am, Sir, your obedient servant,

JOHN GIBBS.

Maze Hill Cottage, St. Leonard's-on-Sea, June 17th, 1858.

THE "PUBLIC HEALTH BILL" AND VACCINATION.

To the Editor of the Botanical Journal.

SIR,—By one of those surprises, familiar to Jennerites, Board of Health officials, and sanatory reformers in search of place, in the absence of members who had amendments to propose, the "Public Health Bill" has been hurried through committee in the Commons, and a clause has been added enacting that:—

"Proceedings for penalties under the Acts for the time being in force on the subject of vaccination, may be taken on the complaint of any registrar employed for the registration of births, deaths, and marriages, public vaccinator, or officer authorised by the Board of Guardians, or by the overseers respectively, and the cost of such proceedings shall be defrayed out of the common fund of the Union, or out of the poor-rates of any parish not included in a Union."

Hereby, registrars and public vaccinators are converted into an army of spies, common informers, domestic inquisitors, and public prosecutors.

Moreover, faith is broken with the opponents of compulsory vaccination. A promise was given, over and over again, that investigation by a select committee should precede any further legislation on the subject of vaccination. That promise has become widely known, not only at home, but in France and Germany, in which country the appointment of the committee is expected with anxious interest. The Jennerites shrink from investigation, violate the agreement, and, by a side wind, attempt to attain an ad-

vantage they dare not openly seek. They snatch a short-lived triumph, by which, assuredly, they do not serve their cause. Neither can such a disingenuous proceeding elevate our legislators in public esteem, or raise the national character in the estimation of observing foreigners.

Relying on the plighted faith of the Commons of the United Kingdom, and unwilling to obtrude their wrongs upon the nation and the Government, in a season of great public calamity, the anti-compulsory-vaccinators have abstained from any demonstration since last year. Behold their reward! In future they will know how to act, and the remembrance of the treachery just practised upon them will not tend to cool their zeal or to slacken their exertions.

Is it wise to persecute peaceable citizens because they choose to form their own opinions upon a scientific subject? Is it well to provoke them into a contest with constituted authority in defence of their deliberate and conscientious convictions, their religious scruples, their rights as men and fathers, the sanctity of their homes, and the inviolability of their persons? In such a contest, which side, the persecutors or the persecuted, is likely to triumph?

I am, Sir, your obedient servant,

JOHN GIBBS.

Maze Hill Cottage, St. Leonard's-on-Sea, June 19th, 1858.

P.S.—What should be thought of a "Public Health Bill" which has no reference to the polluted condition of the Thames, and of legislators and sanatory reformers whose chief care is to secure a continuance of large salaries for doing nothing?

INOCULATION.

To the Editor of the Botanical Journal.

SIR,—A man who inoculated a child with smallpox, which resulted in death, has been committed to prison on a charge of manslaughter; a child has been killed by vaccination, and no punishment threatens the inoculator; and a parent, who conscientiously objects to contaminate his child with cowpox, has been fined. Taken in connection, these facts are suggestive.

Inoculation is said to be of "remote antiquity"—to have been practised in times of ignorance and amongst barbarous tribes—and to have had its origin in the deserts of Armenia, where the practice was "monopolised by old women." Such is its respectable parentage.

It is said that an analogous practice—contact—was anciently in vogue in remote parts of Wales and Scotland, but the introduction of inoculation into these kingdoms was reserved to a clever but eccentric woman of rank and beauty, who learned it of "a set of old women" in the East. The novelty was soon patronised by a royal princess, and, like other fashions and foibles of the great, in due time it descended to the vulgar. In vain did some conscientious divines denounce the wickedness of the voluntary infliction of disease, and a few far-sighted physicians prognosticate the inevitable results. It was useless to represent "the extreme imprudence of rushing into an immediate and certain danger, in the precarious hope of preventing one that was distant and contingent." As usual, the alliance between "the most eminent physicians" and their lady-clients carried the day against common sense and reliance upon Providence. The new system was loudly lauded in the press and the pulpit. Amongst other zealots, a Bishop of Worcester preached it in Holborn. He had the hardihood to assert—inoculators have never been very scrupulous—that, in the place in which he preached, "the deaths by smallpox had lessened 1-5th since inoculation was practised. Whereas in the year 1752, in which this sermon was preached, the smallpox was raging in the town, and the deaths were more numerous than they had ever been in any year previous to it: they amounted to 3,538 persons."—(*Moore's History of Smallpox.*)

Time, however, fully vindicated the objections to smallpox-inoculation. The practice was introduced into England in 1722, and was in favour for the greater part of a century. At length it became apparent to all competent observers that it was a very great evil. "The confession," says Dr. Moore, "that must be made, is mortifying to a professional man; for, according to such records as we possess, it appears that in spite of all medical exertion, the mortality from smallpox had

progressively augmented. It had been made evident from the bills of mortality of the City of London, renowned for medical science, that at the beginning of the eighteenth century, about 1-14th part of the inhabitants died of smallpox; and during the last thirty years of that century, when the practice in smallpox was highly improved, the mortality by that disease had augmented to 1-10th. * * * But this immense and increasing consumption of human lives was not the sole evil produced by this distemper; for a considerable portion of the survivors were pitted and disfigured; some lost one of their eyes, a few became totally blind, and others had their constitution impaired, and predisposed to a variety of complaints, which were productive of future distress and sometimes death." In fact, smallpox-inoculation—which, for nearly one hundred years, was patronised by royalty, preached by bishops, and practised by the faculty—was a very hotbed of contagion, disease, and death, fell at last under the ban of the law, and is now punished as a crime. Must the past preach modesty in vain?

About the time when it was generally acknowledged that the practice of smallpox-inoculation was indefensible, Jenner, fortunately for empirics, but unfortunately for humanity, made known a new mode of inoculation, of which he took the hint from some milkmaids. This substitute for the old delusion was named vaccination. A host of volunteers, including clergymen, ladies and footmen, eager to acquire a cheap reputation for science and philanthropy, hastened to propagate it. With little consideration and less experience, it was preached in the pulpit, puffed in the press, commended by the medical colleges, and sanctioned by Parliament. Opposition and warning were in vain. A Jennerian Society was formed; a Vaccine Board organised; an annual grant voted, and a yearly report printed by Parliament; and the boon of a free post conceded to the cowpoxers. Yet vaccination advanced but slowly. Common sense, worth all the sciences, rejected it. Men like Watt and Kant condemned it. In 1811, nine years after he had received his £30,000, Jenner intemperately wrote, "the town is a fool—an idiot."

For more than half a century, vaccination has been fostered and tested. No means have been left untried to obtain for it general acceptance. The public moneys have been lavished upon it. Well-paid boards and agents have importunately proffered it. Coercive means, bribery, "pious frauds," "well-intentioned devices," "ingenious contrivances," even forged documents, have not obtained for it the popularity which is desired. It is difficult to believe that corrupting the vital juices and invading the vital powers can conduce to health. The nostrum has failed to fulfil the boasts of its author. Individuals, who rely upon it for protection, die of smallpox. Vaccination, by warrant of law, kills some and afflicts others with, or predisposes them to, a variety of diseases. Nevertheless, it must be forced upon a thinking and unwilling people. One weapon remains—a compulsory law—and now, in the latter part of the nineteenth century, parents are fined for maintaining their opinions and their parental rights, and rejecting a pernicious nostrum.

Contrast the conduct of the traders in cowpox with that of the vendor of some patent medicine. The inventor may boast the efficacy of his wonderful pill and solicit everybody to buy. But he does so with becoming modesty. He puffs, but he defrays the costs of his advertisements himself. He even pays a heavy tax to the State for the privilege to sell. He is content. All he asks is a clear stage and no favour.

The traders in cowpox are not so easily satisfied. They not only demand that they be subjected to no restriction, but to no competition. They are not even bound to supply the real thing, but may substitute anything, or nothing. Their rivals, who proffer smallpox, must be put down. This is not enough; the cowpoxers must have more peculiar and extraordinary privileges. Government must keep a shop for supplying their drug. They must be subsidised by the State: in 1855 (not to mention Ireland and Scotland) they received nearly £57,000 in England and Wales, and they clamour for more than thrice that sum. Yet more: their puffs must be printed by the State. Last year, besides the usual (so-called) Annual Re-

port and other documents, Parliament printed for them a Blue Book of 280 pages. Still dissatisfied, they require more. They have the impudence to demand that everybody shall be compelled, not only to buy, but actually to imbibe, their disgusting and deleterious corruption. After that, talk of "rampant quackery!" Does truth require, or can it be recommended by, such means?

If a child should die in consequence of smallpox-inoculation, there is a verdict of manslaughter against the operator. Should a child die of cowpox-inoculation, it is all right.

Smallpox-inoculation was patronised by Government for nearly a century. It is now illegal. Cowpox-inoculation has taken its place, and is now the favoured folly. When shall it, in turn, yield to some new absurdity, and the parallel be complete? Must there be always some favourite disease?

I am, Sir, your obedient servant,

JOHN GIBBS.

Maze Hill Cottage, St. Leonard's-on-Sea, August 2, 1858.

COMPULSORY VACCINATION.

(Reprinted from the "Brighton Examiner" of July 27, 1858.)

A MAN named Mackey has been committed at Kilkenny, under a coroner's warrant, for manslaughter, for having inoculated a child with smallpox, and thereby causing its death.—*Medical Circular.*

Hackney: At 3, Elizabeth Cottages, Albion Road, Dalston, on the 10th February, the daughter of a laceman, aged three months, died of erysipelas, after vaccination (3 days), pneumonia (4 days). —*Registrar-General's Return.* It does not appear that there was an inquest.

Stockport: Smallpox numbers 10 victims, 6 of whom had been vaccinated, and 4 not vaccinated.

Wigan: Smallpox was fatal in 23 cases, 14 after vaccination.—*Registrar General's Return.*

At Bury St. Edmunds, Mr. George Ridley has been fined 5*s.* for refusing to have his child vaccinated. He stated that he had a conscientious objection to vaccination, as tending to introduce disease into the system of healthy children.—*Illustrated London News.*

About 30 petitions against the vaccination laws have been presented to the Parliament of Wurtemburg.

The select committee of the Belgian Academy of Medicine, report that "vaccination and re-vaccination cannot be rendered compulsory in Belgium."

Re-vaccination does not seem to have agreed with the French army. In the 10th regiment of artillery at Toulouse, so many men have been laid up in consequence, that the Emperor had sent down Dr. Larry to see about it.—*Illustrated Times.*

Thousands of persons have been inoculated, at New Orleans, with the mingled poison of the virus of adders and rotten livers, as a preservative from yellow fever.

Inoculation with syphilis is advocated in Russia as a protection against cholera. What next?

THE MEDICAL LEGISLATION OF THE SESSION.

To the Editor of the Botanical Journal.

SIR,—A glance at the medical legislation of the session may interest your readers.

The "Poisons Bill" was withdrawn, in deference to the chemists, who strenuously opposed it.

The "Medical Practitioners' Bill" was passed under the title of the "Medical Act." The other Medical Profession Bills were withdrawn or permitted to die. By the passing of the Medical Act, the profession is in the hands of a council. An estimate may be formed of the popularity of this Act amongst medical men from the fact that the petitions in its favour only number 739 signatures, representing not nearly a tithe of the profession. An interesting calculation may likewise be made of the value placed by the House of Commons on the signature of a doctor compared with that of a layman, it being exactly as the said number 739 is to 15,733, as presented by Dr. COFFIN and his friends.

Parliament congratulates itself upon having got rid of an annual source of trouble, but may find itself mistaken. The Act was avowedly accepted as an instalment, upon O'Connell's principle of taking six shillings and eightpence in the pound and then looking for the rest. It is already in disfavour. At the last moment

clauses were introduced into it which art offensive to its supporters. The clause making registration compulsory is resented by some medical men as an indignity. The clause enacting that none but registered practitioners shall recover charges is felt by others as being both impolitic and unjust, and a direct incentive to a dishonest repudiation of moral obligations. Under this clause, the questions may arise—Are corn-cutting and hair-cutting surgical operations? and some enterprising surgeon may yet claim for the craft a renewal of their old monopoly of shaving. However, as regards the supply of medicine, the clause is defective: it enacts that no unregistered person shall recover any charge in any court of law "for any medicine which he shall have both prescribed and supplied." There is nothing in this to prevent one person from prescribing and another from supplying. By this plan the person supplying would be entitled to recover his charges. The holders of foreign diplomas are, with some limitations, entitled to register. The clause providing for the advance of money from the Treasury for the purposes of the Act was properly struck out at the suggestion of Mr. T. S. Duncombe. On the whole, we may expect a renewal of the agitation next session, and a day may come when the very men who have been most active in promoting this legislation may desire to emancipate their profession again from the trammels of the State.

The Irish Vaccination Bill has also passed. Three clauses have been added, the most important of which provides for the payment, out of the poor rates, of the costs of legal proceedings, when taken by a Board of Guardians, against any person who shall propagate smallpox by inoculation or otherwise.

The Public Health Bill has also passed. This Act is to expire in August, 1859. An attempt was made by the Lords to extend it to two years, but it was successfully resisted in the Commons by Mr. T. S. Duncombe. Having broken one promise in passing the eighth clause (with the purport of which your readers are acquainted), the House was suddenly seized with a fit of virtuous resolution, and refused to commit a second "breach of faith." The passing of the eighth clause has been defended on the grounds that the present Government are not responsible to the House for a promise made by a former Government. This is an unworthy subterfuge. The promise not to legislate again upon the subject of vaccination previous to inquiry, was made not only by one Government, but by successive Governments, and not to the House, but on behalf of the House to the petitioners, who, out of doors, opposed compulsory legislation upon a scientific question affecting personal rights. The House of Commons has broken its repeated promise, violated its duty to its constituents, and disgraced itself. If we are to have our homes infested with medical spies, and our personal and parental rights betrayed, we may ask—Of what use is a House of Commons? If this institution fails to guard our liberties, has it not outlived its design and its utility? Are 560 tyrants preferable to a single despot? To what purpose did our forefathers fight and bleed? The people may yet find it necessary to put a limit to the usurpations of their representatives.

The House of Commons having confirmed the odious Compulsory Vaccination Act of 1853, now is the time to show that this bungling measure is not worth the paper upon which it is printed. It does not need an O'Connell "to drive a coach and four through it." The ninth clause enacts that the notice, requiring the performance of vaccination, shall be given "on or within seven days after the registration" of birth. Clause 2 enacts that the child shall be vaccinated "within three calendar months" after birth, when in the custody of a parent, and "within four calendar months" when in the custody of another guardian. If the registration of birth be postponed until the expiration of the third or fourth month, as the case may be, it becomes a physical impossibility to vaccinate the child within the prescribed age, and the vaccination notice becomes only a bit of waste paper.

There are other holes in the Act, but it may suffice to point out one at a time. Should this one be stopped, it will then be convenient to point out another.

The Compulsory Vaccination Act is conceived in the spirit in which Galileo was compelled to retract his opinions.

But some of the old English hatred of arbitrary power is still alive. The Registrar-General reports the people in various towns as "violent," "very violent," and "threatening," when served with the notices; and it is said that, with reference to the Act, the sturdy men of Sheffield exclaim—"Ah! they may make laws—we'll show them how to break them!" Is it wise to provoke such feelings amongst the people? Government had better beware how it proceeds further in a course, of which it is impossible to foresee all the results.

I am, Sir, your obedient servant,

JOHN GIBBS.

Maze Hill Cottage, St. Leonard's-on-Sea, August 6, 1858.

We would remark, in reference to the above articles on vaccination, that we are indeed as much opposed to *compulsory vaccination* as Mr. Gibbs; but our firm belief is still in accordance with what we have before written and often asserted from the rostrum, "that the *kinepock*, or the introduction of it *in its pure state* into the human system, has done an immense amount of good;" but still, as a lover and advocate of freedom, we would allow all to exercise their right of choice.

24, *Montague-place, Russell-square.*

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"Human experience, which is constantly contradicting theory, is the great test of truth."—Dr. Johnson.

No. 270—Vol. VIII. SATURDAY, SEPTEMBER 18, 1858. Price 1½d.

THE GLEANER, No. 16.

THE ACTION OF CIVILISATION, GOVERNMENT AND EDUCATION UPON THE HUMAN RACE.

That civilisation, government, and education act very powerfully on the human race, is too obvious to be doubted; but the question relates to the capability of civilisation. Why have the white races invariably, and without one exception, raised themselves to at least some considerable height in the scale of cultivation; while the dark, on the contrary, have almost as universally continued in the savage or barbarous state? If we suppose that, at any remote era, all mankind, in all quarters of the globe, were in the latter condition, what are the accidental circumstances which have prevented all the coloured varieties of man from raising themselves, and at the same time have assisted the progress of all the others? If the nations in the north and west of Europe, when first conquered by the Romans, should be allowed (contrary, however, to historical proof) to have been in a state of barbarism not superior to that of the present rude tribes of Asia, Africa, or America, why have they advanced uninterruptedly to this present exalted pitch of culture, while the latter remain plunged in their original rudeness and ignorance?

I do not mean to assert that all individuals and all tribes of dark-coloured men are inferior in moral and intellectual endowments to all those of the white division. The same gradations and modifications of structure and properties exist here as in other parts. Certainly we can produce examples enough in Europe of beings not superior to Hottentots and New-Hollanders: and individuals of considerable talents and knowledge are met with in savage tribes. There may not be much difference between the lowest European community and the highest in some dark variety of man. Examples of individuals and of small numbers will therefore prove little in this matter.

I am aware also that all the white races have not made those signal advances in knowledge and civilisation, of which I have spoken as indicating their superior endowments. Their organisation makes them capable of such distinctions, if circumstances are favourable, or rather if no obstacles exist. In the dark races, on the contrary, inferior organisation renders it vain to present opportunities, or to remove difficulties.

Loss of liberty, bad government, oppressive laws, neglected education, bigotry, fanaticism and intolerance in religion, will counteract the noblest gifts of nature, will plunge into ignorance, degradation and weakness nations capable of the highest culture, of the most splendid moral and intellectual achievements. Greece, Italy, and Spain bear melancholy testimony to this afflicting truth. Where are the brave republican Dutch, who first sustained a forty years' contest with Spain in the zenith of her power, when she could alarm all Europe by her ambitious schemes, and who then contended with England for the dominion of the sea? What causes the present feebleness of Turkey, whose very name

is deemed almost synonymous with despotism and ignorance? Careful observers can discern even in these victims of oppression and fanaticism, the germs of all the higher qualifications of our race, the evidences of those moral excellences and intellectual powers which require only a favourable opportunity to display themselves. It is generally allowed that the Turks are superior in natural qualifications to their conquerors the Russians, who enjoy over them the advantages of a government and religion more favourable to the progress of knowledge and to individual security and happiness.

Such are the results deducible from experience respecting the differences of moral feelings and intellectual power. Having stated them strongly, I am anxious to express my decided opinion that these differences are not sufficient in any instance to warrant us in referring a particular race to an originally different species. They are not greater in kind or degree than those which we see in many animals; as in horses, asses, mules, dogs, and cocks. I protest especially against the opinion, which either denies to the Africans the enjoyment of reason, or ascribes to the whole race propensities so vicious, malignant, and treacherous, as would degrade them even below the level of the brute. It can be proved most clearly, and the preceding observations are sufficient for this purpose, that there is no circumstance of bodily structure so peculiar to the Negro, as not to be found also in other far-distant nations; no character, which does not run into those of other races by the same insensible gradations as those which connect together all the varieties of mankind. I deem the moral and intellectual character of the Negro inferior, and decidedly so, to that of the European; and, as this inferiority arises from a corresponding difference of organisation, I must regard it as his natural destiny: but I do not consider his inferiority greater than that of the other dark races. I can neither admit the reasoning nor perceive the humanity of those who, after tearing the African from his native soil, carrying him to the West Indies, and dooming him there to perpetual slavery and labour, complain that his understanding shews no signs of improvement, and that his temper and disposition are incorrigibly perverse, faithless, and treacherous. Let us, however, observe him in a somewhat more favourable state than in those dreadful receptacles of human misery, the crowded decks of the slave-ship, or in the less openly shocking, but constrained and extorted, and therefore painful labours of the sugar plantation.

(To be continued.)

NOTTINGHAM BOTANIC INSTITUTE.

To the Editor of the Botanical Journal.

Sir,—Residing in Nottingham, I have been asked frequently whether there is such an institution as the above in the town. In answer to these, and for the information of your readers and the friends of our system, I shall be obliged by your making the following facts known: There is no Botanic Institute in Nottingham; there is, certainly, a Botanical Society, but the individuals sending out the advertisements are not, in any way, connected with it. The principal is a debt-collector, and the secretary an individual who, some weeks since, received such a castigation from "Punch," for his plagiarisms. He was formerly with an itinerant market-place vender of pills, and tried, I understand, to commence business on his own account, at a small town near here. He is next found with the first individual; and a feasible tale is made up by one of them (for which, see their advertisements) about Susquehanna root, which, as you have shewn, is a fictitious name, as there is no such root growing. To deceive the public still more, the principal thought he must have a view of some building for a note heading: he accordingly had a drawing made, of a building used as a boarding-school, which has a very good frontage; and to make it look still more imposing, the view of a large clock in the centre was added, with the words "Botanic Institute" over it. Persons receiving the notes, and seeing the view of so fine a building printed thereon, readily imagined that it must be a public institution in the town. If they would give a *correct* view of their establishment, it would be

of a private dwelling-house, a plate on the door with the principal's name and business, and at the side of the door, a small plate with the words "Botanic Institute" engraved thereon.

I have no objection to the individuals vending their pills; but certainly think it is not fair or honest for them to sail under our colours, and sell their pills by this deception. If they are such benefactors, let them stand or fall by their own merits.

I am, Sir,
Yours respectfully,
A Subscriber.

MEDICAL EDUCATION.

(Continued from page 365.)

While the council was thus active in extinguishing every attempt to compete with the schools or hospitals to which its members were attached, its examinations were notoriously inadequate as tests of professional skill. A considerable portion of the fees payable by admitted members being shared by the president, vice-president, and council of the college, and the remainder being at their disposal, it was alleged that sums thus obtained and obtainable, acted as a powerful stimulus to confer the college diploma on as large a number of candidates as possible. We learn from one of the resolutions passed at a meeting presided over by Mr. Lawrence, that the examiners "affected to go through the forms of examination in a single evening, with so great a number of candidates as to render such examination perfectly nugatory as a test of qualification . . . . . That although the Court of Examiners no longer allow themselves, as they formerly did, to go through the forms of examination with sixty or seventy individuals in an evening, they still conduct this important part of their duty in so imperfect a manner, as to render their diploma an altogether inadequate criterion of professional qualification." It was stated at the same time, that "the college library, consisting of books partly purchased out of the college funds, and partly presented by individuals, has always been and still continues entirely inaccessible to the members,—there is no catalogue and no librarian," and that although "for the express purpose of assisting the progress of anatomy and surgery," the Hunterian Museum was purchased at the public expense, and presented to the college by government in 1799, "it has been so managed as to have been of little or no public utility. No catalogue of its contents has been printed, or even prepared; it is inaccessible to the members during eight months in the year, and for the remaining four months, it is open only twice a week, and for four hours each day."

This accumulation of abuses and injustice at length aroused the indignation of the profession: two meetings were held at the Freemasons' Tavern, in 1826. At one of these, the foregoing resolutions, among many others equally pertinent, were passed. On each occasion, Mr. Lawrence delivered an excellent speech, distinguished throughout by sound principles and common sense. The slightly amended curriculum of study, published by the college about the time of these meetings, was intended probably to sooth somewhat the growing discontent. But the agitation continued slowly to increase year by year; petitions were forwarded to Parliament; the medical press repeatedly denounced the abuses we have enumerated, and insisted on reform; the Parliamentary Committee of 1834 collected a vast body of evidence which proved how imperatively a change was called for; and finally, the dissatisfaction of the 12,000 members of the College of Surgeons became strong enough to impress the government with the conviction that "something ought to be done."

"On succeeding to the presidency," says Mr. Guthrie, "I thought it desirable to put our house in order before we applied to government, according to the desire of Lord Normanby and Mr. Fox Maule, for a charter." In 1841, therefore, the museum and the library were thrown open, and the same authority asserts that "there was nothing that was not done that could gratify or satisfy the profession." In January, 1842, Sir James Graham, then Secretary of State, transmitted to the college fifteen propositions which he wished to have embodied in a new charter. Finally, in 1843, the reformed charter came into force. Its main object was to lessen the exclusiveness of

the governing body in regard to offices, honours, and emoluments, by the creation of an order of fellows who should be eligible to the council and to the lucrative examinerships. By this charter Sir James Graham ordained that out of the then existing commonalty of surgeons, not less than 250, nor more than 300, should be forthwith created fellows, without examination and without payment. This was to be done "with all convenient speed after the date of these our letters patent, and before the expiration of three calendar months," and accordingly it was done "by one general diploma." To select 300 for this new honour out of about 12,500, without submitting them to any examination, was a task as invidious as it was absurd. The real value of an honour so conferred, without applying any test of competency, was small indeed in the eyes of impartial persons. By the profession its worth as an evidence of merit was sufficiently appreciated, but it raised its possessors nominally, and as in the profession there is a great deal in a name, it was eagerly clamoured for. As an indication to the public of superior professional skill, it was "a mockery and a snare." This nostrum of the state physician, Sir James Graham, was thus applied: First, a net was thrown over the surgeons of London, and all who were members of the then-existing council, all who were surgeons or assistant surgeons to the several hospitals recognised by the college, all lecturers on anatomy or surgery recognised by the college, and all who had been surgeons to such hospitals, provided they were members of the college, were caught, and suddenly found themselves within the pale of the fellowship. But this crowd of distinguished indistinguishables was not yet large enough to satisfy the atoning spirit of Sir James, who was sincerely anxious to remedy by fresh State interference those very ills which had been exclusively caused by a like interference in former times. But in the practice of politics almost all practitioners are homœopaths. Accordingly it was "thought right to add those who, although eligible for the council, had been passed by and not elected, as well as others residing in London who were juniors, not practising pharmacy, and some few others who might have a certain degree of note in the country at large." Then the *esprit de corps* in the bosom of President Guthrie, who had been an army surgeon, pleaded touchingly for his own order. "You cannot think," said he, "of leaving the officers of the public service out . . . . you ought at least to take the senior officers belonging to the three branches of the service, and probably they may be satisfied with that." Thirty-four "inspectorial," or "superintending" surgeons were therefore selected from the three services, *solely on account of their seniority*, as recipients of the newly created honour. A gentleman holding only the rank of regimental surgeon, was proposed along with the above for the fellowship, on the ground of his great professional ability; but to have elected him would have been to violate the simplicity of the arrangement of election by seniority; the president, therefore, strongly objected, and fought manfully for the principle of seniority. Vigorously besieged by certain members of the council, he yielded in this one case with the understanding that it should not be taken as a precedent. But now the troubles of Sir James and of the college, just when the great act of pacification was expected to diffuse only joy and satisfaction, really began. "The senior officers of the Guards," says the president, "when they heard of this [the election of a junior], were much displeased, and they all addressed the college. Their letters are very angry letters; they addressed the council individually, and came to me to say that I had used them ill." The large number of the envious, or of the neglected meritorious, raised a loud shout of anger and dissatisfaction. The tumult, gathering strength as it arose from different parts of the country, and from the army and navy of both the Royal and East India services, appalled equally the stout heart of the reforming baronet and of the conservative president. Sir James yielded to the new demands. Although the whole 300 fellows had already been created, the clamour of the tumult could not even be temporarily silenced, until the new honour had been awarded to 242 more of the most eager claimants, still without submitting them to any test of their

knowledge or skill. In the haste of this second pacification, two Mr. Halls were confounded with each other, and the diploma intended for Thomas, without examination, was sent to John. "John," says the president, "having got the diploma, stated that he was very much obliged to us—that it was quite an unexpected honour, but that he would keep it." When informed of the mistake, he said, "As you have been so good as to forward the diploma to me, I shall keep it." What was to be done? The 242 additional fellowships which Sir James had ordered to be conferred without examination or payment, were already disposed of. There was nothing for it but to oblige the unfortunate Thomas to submit to an examination, and to pay £10 before he could be distinguished as was originally intended.

In short, the method of awarding the fellowship, and the principle which guided the selection of its recipients, created more dissatisfaction than its non-existence. The result of the double pacification, by order of the Home Secretary, was a formidable rebellion, which organised itself, in 1845, under the name of "The National Institute of Medicine, Surgery, and Midwifery." In 1848, Mr. Guthrie laments that of the 12,500 members of the college, 12,000, or 96 per cent., "have strenuously objected to the changes that have taken place under the late charter," and have foresworn allegiance, and expresses his opinion, that if the objectionable parts of the said charter were removed, they would "return to the college." Such are the beneficent results of over-legislation. Not the least ludicrous part of this story is that in which Mr. Guthrie most pathetically narrates how he and his council were forced to pray for a charter, which they not only did not want, but towards which their conservative instincts inspired them with the strongest repugnance. "When it became necessary," says he, "to accept the charter, we accepted it, of course; when it became necessary to pray for it—which we have been sadly accused of having done, contrary to the interests of the profession—we were obliged to pray for it on the same principle, the lawyers informing the council that if they did not consent to pray for it, it would be considered to be flying in the face of Sir James Graham, and that consequently it would be the same thing as refusing to obey his orders. Under these circumstances, the council thought it right to pray for it, being quite satisfied (!?) to place the business in the hands of the Secretary of State, and let him do as he pleased, hoping that it would operate in the end for the benefit of the profession."

(To be continued.)

FACTS FOR FAMILIES.

From the "Destructive Art of Healing."

(Continued from page 330.)

What, for example, is Dr. Watson's practice in apoplexy, as it appears in his work of 1845? Having first, on the false theory of "pressure on the brain" drawn off by "*a large bleeding*"—I quote his own words—and by "cupping from the temples, or the nape of the neck," as much of an old man's vital fluid as, by hook or by crook, he can get without slaying the patient outright, Dr. Watson at once proceeds to put him on "very short commons." Here, of course, he rests on his oars? No such thing! Not content with thus pouring out the life-blood of an aged person, and by "very short commons" stopping every chance of the reproduction of his vital fluid—that fluid without which it is impossible to repair a ruptured blood-vessel, supposing that to be the cause, or a ruptured anything else—the worthy doctor has yet other most excellent measures in store. Dr. Watson's next move is to give "aperient medicine two or three times a-day." This, he tells us, he does "in all cases" of apoplexy. How long an aged person can be kept above ground while undergoing this discipline, Dr. Watson does not think it at all necessary to say; but in "young and strong persons" his practice in apoplexy is not yet complete—so, at last, he tells us—till he has further blistered and placed the subject of it under the benign influence of mercurial salivation! Having first, with the most exemplary diligence, drawn away the life-blood of a person of "advanced age," as you would draw away beer from an old barrel, his next step is to diminish the usual *incrementitious* supply by "very short commons," that

he may, with the less compunction, multiply the normal *excrementitious* act of one a-day by the simple rule-of-three! Yes; in order that the patient may be kept "very quiet,"—I quote the doctor's own words—Dr. Watson bleeds him, cups him, gives him aperient medicine twice or thrice a-day, puts him on "very short commons," and, "if young and strong," blisters and salivates him into the bargain! By which procedure, you here see how, to a mathematical certainty, a great London physician may, without any scandal, transmute the elements of the yet living organism of his patient's body to *guano* simply. Were this Dr. Watson's avowed object, how could he possibly improve the treatment? What better recipe could he give than this for reducing an honest man's flesh and blood to manure? Reader, what would you think of a merchant who should first get rid of a great part of his capital, and then, upon a diminished income, multiply his expenditure two or three fold? Such is the plan of cure recommended by Dr. Watson. Yet it is but just to him to say, that he is not alone in this practice. Dr. Watson is only the type of a class of practitioners who think all this "killing no murder." People there are, nevertheless, who will call it madness—at least madness with a method in it. "Ignorant and impatient sick, or their friends," as Dr. Watson himself tells us, will sometimes think this practice wrong from beginning to end, and wish to try, instead, "strengthening food by meat and drink," "tonic medicines," and other "foolish" remedies. But what can "ignorant and impatient sick, or their friends," know about physic and anatomy? Ah! if ignorant people only knew half as much about their own living bodies, as many of them know about two dead tongues—Greek and Latin—the doctors of the school, of which Dr. Watson is the type, would very shortly be compelled to dine off one, at least, of their own favourite remedies for apoplexy—"very short commons." Strange that men should busy themselves with almost everything in nature but their own bodies. Nearly all bodies but their own are, more or less, familiar to most people; that is the reason why chemistry, astronomy, geography, &c., have progressed, while physic, for three thousand years at least, has scarcely advanced a step. People who will even discuss theology with you all day long—who will dispute and wrangle about what is to be done with their immortal souls in the world to come—in this particular world will leave their poor mortal parts, without scruple, to the doctor and his confederate, the apothecary, to mangle and mistreat as they please.

Can apoplexy be successfully treated without blood-letting? Dr. Todd, at least, who, like Dr. Watson, was till lately one of the professors of King's College, in complete opposition to his quondam colleague, denounces the bleeding system in this disease! "Let me add," says Dr. Todd, "that it sometimes requires the exercise of no small amount of courage and self-possession to resist adopting that practice; for the popular feeling, led by the prevalent medical practice, is entirely in favour of it, and would readily condemn a practitioner as guilty of the death of his patient who suffered him to die unbled."

Thus in apoplexy, as in pneumonia, Dr. Todd, again without acknowledgment, adopts, in 1850, the practice I first publicly inculcated in 1836.

Having seen how Dr. Watson, the "great authority" of the London doctors, treated, or rather mistreated, apoplexy as late as 1845, turn we now from that disease of "advanced age" to Dr. Watson's practice in "infantile disorders" at the same epoch. Take the case, for example, of an infant suffering from "water on the brain." Dr. Watson begins with this very proper caution—"We must bear in mind that our patients are children, and, for the most part, weakly or *scrofulous* children." In such a case, what sane man would advise antiphlogistic remedies? This is Dr. Watson's plan:—"If the child be *feverish* [which it is sure to be] there can be no doubt about the propriety of *abstracting blood*."—"We may apply three leeches to a *strong* infant of six months"—in a disease affecting, "for the most part, *weakly* or scrofulous children!" "Six *ounces* [of blood] drawn from a vein is a full bleeding for a child five or six years old."—"Next in rank come *purgatives*," the best, according to Dr. Watson, being "*calomel* and jalap, or calomel and scammony."—"In the latter

stages *blisters* are of good service." What, by Dr. Watson's own account is the result of this model practice? "Taking the average, we have 76 instances of the disease and 19 *recoveries*—exactly 1 in 4. The cases in which the recoveries took place were mostly those in which antiphlogistic measures were adopted *early*." Mostly those! magnificent proportion—*three* deaths out of every *four!* And yet, so enamoured is Dr. Watson of the antiphlogistic practice, he thinks it right to caution his readers "against trying now this and now the other remedy, because it is *new*, or because some persons have been wonderfully successful with it!" The "*remissions*" common to all constitutional complaints, observable in water on the brain, Dr. Watson stigmatises as "deceitful appearances of amendment, and even of *convalescence*. The child *regains the use of its senses*, recognises those about him again, appears to its anxious parents to be recovering; but in a day or two relapses into a state of deeper coma [insensibility] than before; and these *fallacious* symptoms of improvement may occur more than once." Ah! Dr. Watson, did you and the miserable clique who cry you up as a great physician only know the value of these "fallacious symptoms," how easily, with a grain or two of *quinine*, might you prolong to a cure those Heaven-sent *intermissions*, which, by your own showing, frequently last for days together! What must be the state of physic in England, when a man who should write as Dr. Watson has written, on apoplexy and hydrocephalus, actually enjoys the reputation of being the first physician of the Metropolis? Reader, there are wheels within wheels here, which make it an absolute impossibility for the "race to be to the swift," or the "battle to be to the strong," or "riches to be to men of understanding," in the medical profession—as *now* constituted! The *why* and *wherefore* of this will come out in proper time.

(To be continued.)

LIFE.—Life is no speculative venture with those who feel its value and duties. It has a deeper purpose, and its path becomes distinct and easy in proportion as it is earnestly and faithfully pursued.

A MEDICAL GLOSSARY, OR EXPLANATION OF TERMS.

Abscess—a collection of pus in the cellular or adipose structure.

Amaurosis—a loss of sight without any visible injury to the eye.

Anasarca—dropsy of the cellular membrane.

Anchylosis—a stiff joint.

Aneurism—a preternatural dilatation of an artery.

Anthrax—a carbuncle.

Antiphlogistics—a term applied to those medicines, plans of diet, and other circumstances, which tend to oppose inflammation.

Aphthæ—the thrush.

Bronchocele—the Derbyshire neck; a tumor formed by an enlargement of the thyroid gland.

Bronchotomy—the operation of opening the windpipe or trachea.

Bubo—a swelling of a lymphatic gland.

Bubonocele—an inguinal rupture.

Calculus—a stone. Concretions in the urinary bladder, gall-bladder, &c., are termed calculi.

Cancer—a painful, hard, indolent tumor of a part, which terminates in the foulest ulcer.

Caries—rottenness or ulceration of the bones.

Cataract—an opacity of the crystalline lens that obscures the sight.

Cicatrix—a scar.

Circocele—a swelling of the testicle and spermatic cord from a varicose state of the veins.

Condyloma—wart-like excrescences, which appear about the anus and pudenda of both sexes.

Diagnosis—the science which points out the signs by which a disease may be distinguished.

Diathesis—a tendency in the body to a particular disease: thus, in a putrid fever there is the septic diathesis, or a putrid tendency; in inflammatory fever an inflammatory tendency, &c.

Discutients—substances which possess a power of repelling or resolving tumors.

Dysurio—difficulty and pain in discharging urine.

(To be continued.)

NOTICE.

Dr. COFFIN may be consulted gratis, as usual, every Saturday evening, from four to eight o'clock, at the Botanic Establishment, No. 24, Union-street, East, Spitalfields. *Patients not admitted to the waiting-room after eight o'clock.*

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Page 157, 11th line from top, col. 2, for *live* read *have.*
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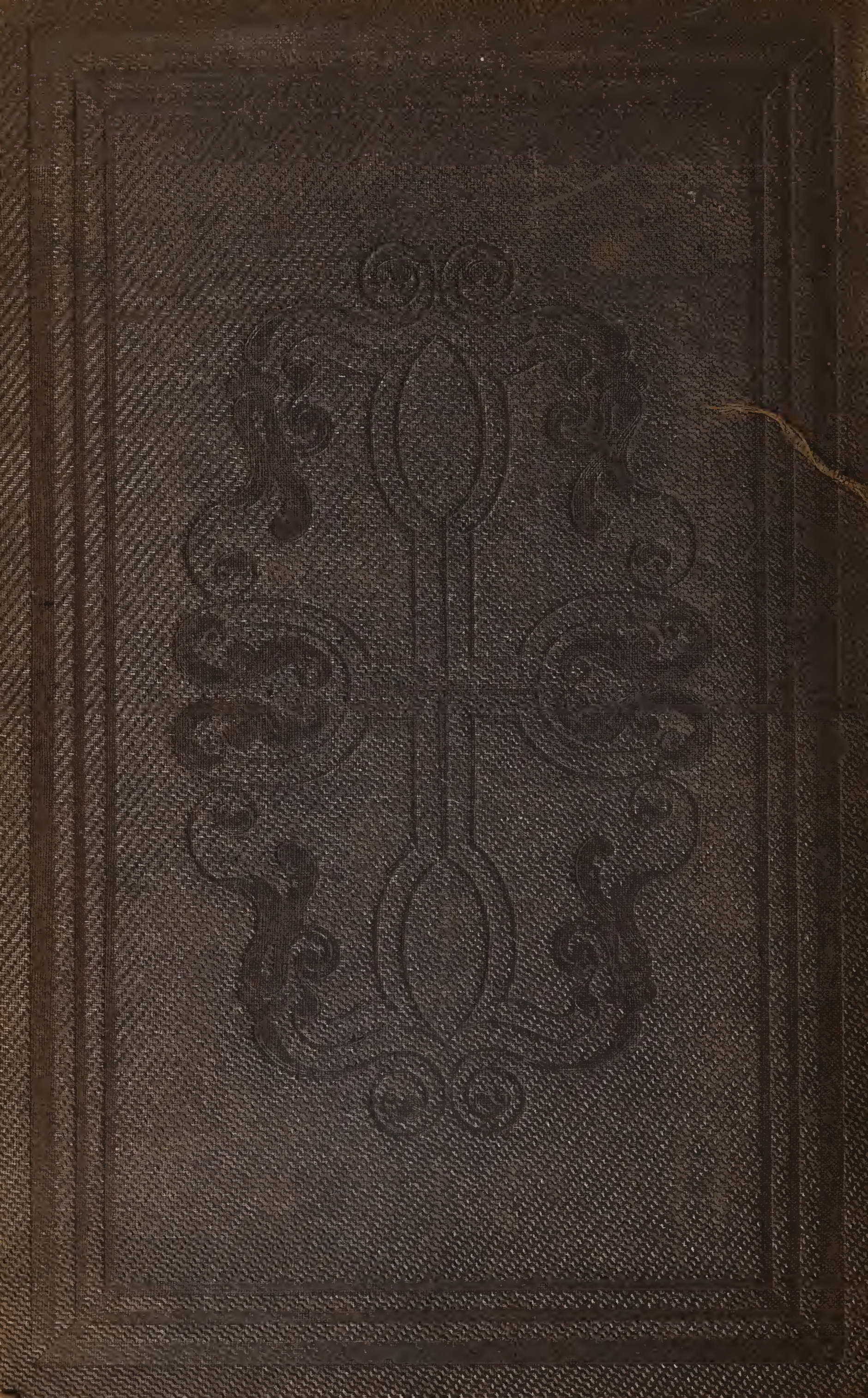
Printed for the Proprietor by B. D. COUSINS, Helmet Court, 333, Strand, London.